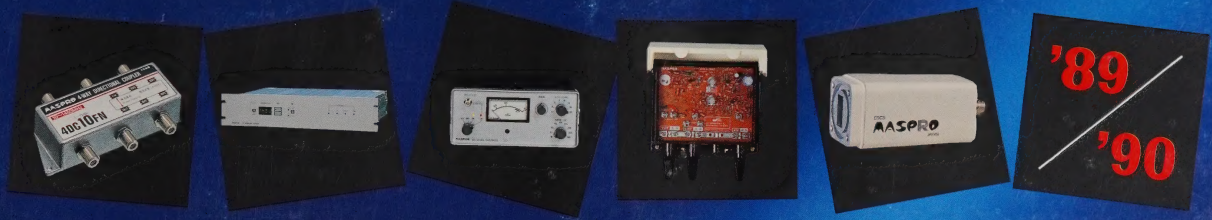
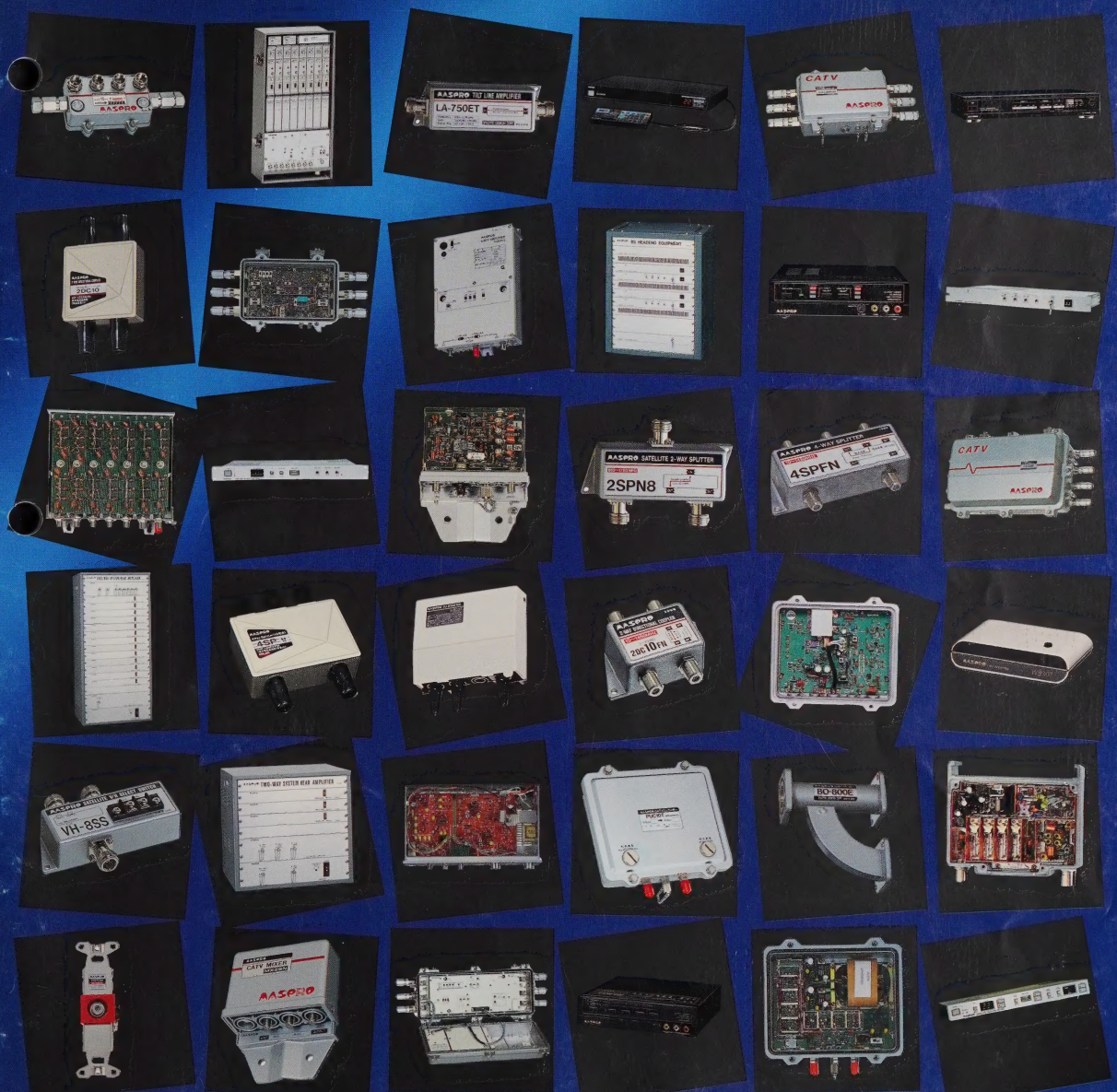


MASPRO ANTENNA

MASPRO CATV



MASPRO

=MASPRO DENKOH CORPORATION=

ASADA, NISSHIN-choh, AICHI-gun, NAGOYA-shigai, JAPAN
PHONE : (052) 802-2211
CABLE : MASPRO NAGOYA
TELEX : 4473377 MASPRO J
FAX : (052) 802-2200

Manufacture and sale of CATV equipment, antennas, satellite equipment and AV equipment, and design, execution and construction of CATV facilities.

Head Office

Capital ¥420 million
Established Aug. 1953
Domestic Branches 47 offices
Overseas Agents 35 countries

Number of employees 980 (1988)
One of every three people working in MASPRO's Head Office is a trained engineer.

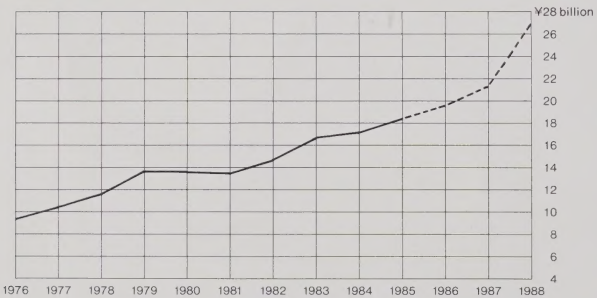
Designated by···

1. Superior Housing Component Certified by Minister of Construction (Better Living Housing Component)
2. The Association of All Japan Electric Construction Work Industries
3. Ministry of Construction
4. Housing and Urban Development Corporation
5. Japan Highway Public Corporation

Major Member of the Following Organizations

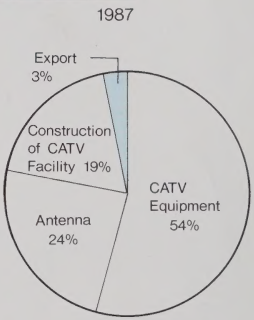
1. Electronic Industries Association of Japan (EIAJ)
2. Japan Housing Association
3. Nippon Cable Television Engineering Association (NCTEA)
4. Japan Electrical Construction Association (JECA)
5. Japan Mechanical and Electrical Installation Engineers Association
6. Japan DIY Industry Association
7. TV Better Reception Community
8. Association on Prevention of Radio Interference
9. Japan Amateur radio Industrial Association (JAIA)

Sales in the Industry



The share in the domestic market has reached 30%.

Merchandise



Materials Supply Center

New Factory

Electronic Equipment Development Dept.

Electronic Equipment Development Dept.

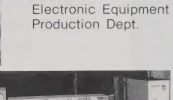
Electronic Equipment Production Dept.

Electronic Equipment Production Line

Computerized Antenna Tester

Antenna Development Dept.

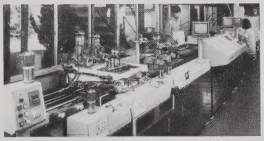
Inspection



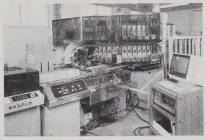
Electronic Equipment Production Dept.

Computer Room

CAD (Computer Aided Design)



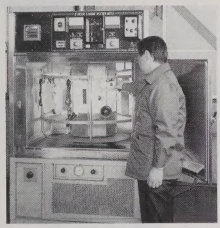
Chip-type Electronic Components Automatic Mounter



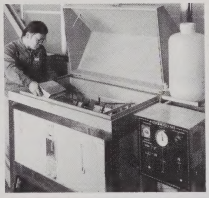
Printed Circuit Component Automatic Inserter

Inside View of the Head Office

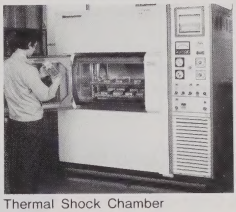
MASPRO always inspects its products thoroughly.



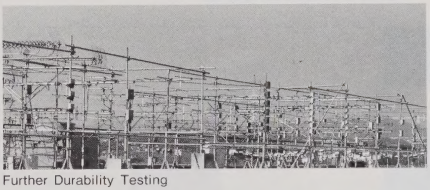
Weatherometer



CASS (Copper-accelerated Acetic acid Salt Spray) Test Machine



Thermal Shock Chamber



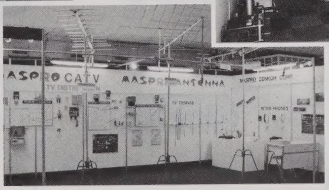
Further Durability Testing

EXHIBITION

Electronic Parts Exhibition in Paris

CABLE '84 in London

Festival CATV in Japan



CONEX Singapore

Japan Electronics Show

MASPRO DENKOH ART GALLERY

- The greatest Collection of Bakumatsu Meiji Bunmei Kaika UKIYOE in the World
- Japanese Traditional Hand-painted Ceramics • Antiques of the World
- Masterpieces of European Paintings

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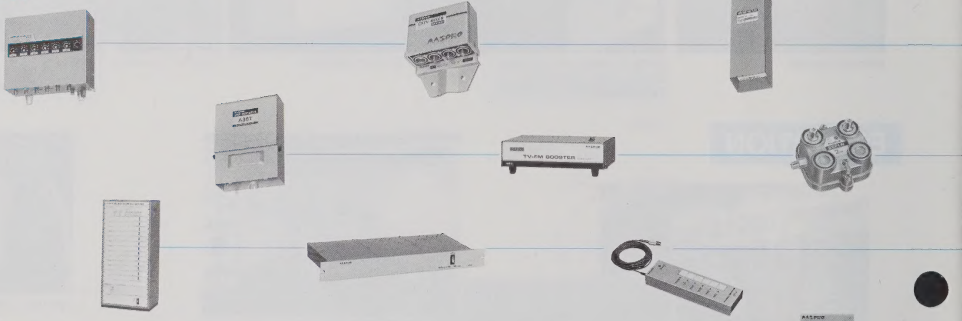
TV·FM ANTENNAS for Home Use

TV·FM RECEPTION EQUIPMENT for Home Use

CATV ANTENNAS

CATV EQUIPMENT



AV EQUIPMENT

HAM ANTENNAS

BLISTER PACK GOODS

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ISOLATOR • LEVEL CHECKER • SATELLITE TUNER
SATELLITE RECEIVERS • BANDPASS FILTER
SATELLITE LINE AMPLIFIERS • SATELLITE AMPLIFIER
SATELLITE ACTIVE 4-WAY SIGNAL SPLITTER • SATELLITE SPLITTERS
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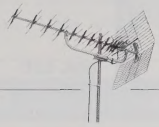

VHF COLOR ANTENNAS • UHF COLOR ANTENNAS
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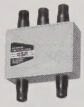

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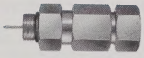

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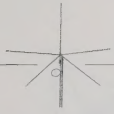

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APPENDIX

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MASPRO

BSK OFFSET PARABOLIC ANTENNA

Model	BSK-65E
Frequency Range	10.95~12.75 GHz
Effective Aperture Diameter	65 cm
Antenna Gain	35.9~37.2 dB
Cross Polar Protection	29 dB Minimum
Minor Axis×Major Axis	650×750 mm
Weight	7.5 kg

BSK-65E

BSK OFFSET PARABOLIC ANTENNAS

Model	BSK45A	BSK50	BSK60	BSK75	BSK100	BSK120
Frequency Range	11.7~12 GHz					
Effective Aperture Diameter	44.4 cm	49 cm	60 cm	75 cm	100 cm	120 cm
Receivable Polarization	RHCP (Right Hand Circular Polarization)					
Antenna Gain	32.8~33.7 dB	33.7~34.5 dB	35.4~36.3 dB	37.4~38.2 dB	39.9~40.7 dB	41.3~42.1 dB
Antenna Directivity & Polarization Discrimination	Conform to **WARC-BS** Individual Reception Antenna's Specifications					
VSWR	Less than 1.2					
Antenna Output Structure	**BRJ-120** (Waterproofed Flange)			**WRJ-120 (WR75)** (Waveguide)		
Minor Axis×Major Axis	456×522 mm	507×580 mm	625×707 mm	775×886 mm	1028×1176 mm	1234×1412 mm
Wind Loading (40 m/sec)	26 kg	32 kg	48 kg	76 kg	133 kg	192 kg
Weight	Approx. 3.5 kg	Approx. 4 kg	Approx. 5.5 kg	Approx. 8.8 kg	Approx. 13 kg	Approx. 28 kg

CS SATELLITE PARABOLIC ANTENNAS

CS120 : OFFSET PARABOLIC ANTENNA

Model	CS120	CS400	CS600	CS600S
Frequency Range	3.675~4.2 GHz			
Receivable Polarization	RHCP (Right Hand Circular Polarization)			
Antenna Gain	31~32 dBi	42~42.9 dBi	45.7~46.4 dBi	
Antenna Directivity & Polarization Discrimination	Conform to **WARC-BS** Individual Reception Antenna's Specifications			
VSWR	Less than 1.3			
Antenna Output Structure	**CPR-229** (Waterproofed Flange)		**WR-229** (Waveguide)	
Dimensions	Diameter : 1.2 m※	Diameter : 4 m	Diameter : 6 m	
Weight (Including Mount)	Approx. 30 kg	Approx. 0.7 t	Approx. 1 t	Approx. 1.3 t
Note	Ground Installation Type			Rooftop Installation Type

※ Minor Axis×Major Axis : 1234×1412 mm

BSK45A

BSK75

BSK100

BSK120

CS600

SATELLITE EQUIPMENT

MASPRO

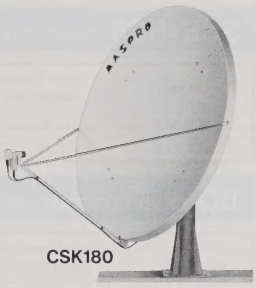
CSK SATELLITE PARABOLIC ANTENNAS

Model	CSK120	CSK180	CSK240
Frequency Range	12.25~12.75GHz		
Effective Aperture Diameter	120 cm	178 cm	240 cm
Receivable Polarization	Vertical, Horizontal		
Antenna Gain	41.7~42.5 dB	45.2~46.1 dB	47.3~48.4 dB
Antenna Directivity	G (ϕ)=29−25 log ϕ dBi $2^\circ < \phi \leqq 23^\circ$, =⊖5 dBi $23^\circ < \phi$		
Polarization Discrimination	More than 30 dB		
Minor Axis×Major Axis	1234×1412 mm	1800×1945 mm	2540×2740 mm
Weight	Approx. 24 kg	Approx. 80 kg	———

CSK120

CS-A SATELLITE PARABOLIC ANTENNAS

Model	CS300A	CS400A	CS600A
Frequency Range	12.25~12.75 GHz		
Antenna Aperture Diameter	3 m	4 m	6 m
Receivable Polarization	Vertical, Horizontal		
Antenna Gain	49.1~50.2 dBi	51.4~52.5 dBi	54.6~55.7 dBi
Diameter	3050 mm	4013 mm	6042 mm
Weight	———	Approx. 700 kg	Approx. 1500 kg



CSK180

OMT ORTHO-MODE TRANSDUCER

Model	Input Frequency Range (GHz)	Receivable Polarization	Insertion Loss (dB)	VSWR	Isolation (dB)	Output Flange Structure	Temperature Range (°C)	Weight (g)
OMT500	12.25~12.75	Vertical, Horizontal	0.05~0.3	1.05~1.3	30~45	WRJ-120 (WR75) Waveguide BRJ-120 Flange	⊖30~⊕50	Approx. 300

PS POLAR SWITCHER

PS500	12.25~12.75	Vertical, Horizontal	0.1 ~0.5	1.1 ~1.5	25~45	WRJ-120 (WR75) Waveguide BRJ-120 Flange	⊖30~⊕50	Approx. 350

Motor Driving Voltage : 5±0.5 V DC, Control Pulse-width Range : 0.8~2.18 msec

CSC SATELLITE CONVERTERS

Model	CSC6	CSC8
Input/Output Freq. Range	3.675~4.2 GHz/0.95~1.475 GHz	12.25~12.75 GHz/0.95~1.45 GHz
Gain	60~65 dB	More than 50 dB
Noise Figure	———	1.6 dB Max. at 25 °C
Noise Temperature	Less than 75 K at 17 °C	———
Power Requirements	15~24 V DC	15 V DC
Dimensions	70(H)×99(W)×200(D) mm	40(H)×41(W)×141(D) mm
Weight	Approx. 900 g	Approx. 200 g
Note	For **CS** Antennas	For **CSK** and **CS-A** Antennas

CSK240

CS400A

CS600A

OMT500

PS500

CSC6

CSC8

MASPRO

FD FEED HORNS

Model	Input Frequency Range (GHz)	VSWR	Aperture Angle (°)	Output Flange Structure	Dimensions H×W×D(mm)
FD-75E	10.95~11.7	Less than 1.2	90±10	**WRJ-120 (WR75)** Waveguide, **BRJ-120** Flange	50× 60× 85
〃 -120E				**C-120** Waveguide, **BRJ-120** Flange	
〃 -75EC			120±10	**WRJ-120 (WR75)** Waveguide, **BRJ-120** Flange	
〃 -120EC				**C-120** Waveguide, **BRJ-120** Flange	
〃 -120EP			90±10	**C-120** Waveguide	φ55×33

SCE·SCF 11 GHz/12 GHz LOW NOISE BLOCK DOWN CONVERTERS

Model	Input Frequency Range (GHz)	Intermediate Frequency (GHz)	Noise Figure (dB)	Convertion Gain (dB)	Power Requirements (V)	Dimensions H×W×D(mm)
SCE-975	10.95~11.7	0.95~1.7	1.6 Max. at 25°C	50 Min.	15~24 DC (200 mA Max.)	40× 41× 95
SCF-778	12.25~12.75	0.95~1.45	2 Max. at 25°C	50~60		40× 39×141

BO BEND-TYPE OMT (ORTHO-MODE TRANSDUCER)

Model	Input Frequency Range (GHz)	VSWR	Insertion Loss (dB)	Isolation (dB) (Vertical, Horizontal)	Waveguide		Input / Output Flange	Dimensions H×W×D(mm)
					Input	Output		
BO-800E	10.95~11.7	1.3 at each port	Less than 0.25	More than 30	**C-120**	**WRJ-120 (WR75)**	**BRJ-120**	95× 81× 38

IL ISOLATOR

Model	Input Frequency Range (GHz)	Insertion Loss (dB)	VSWR	Isolation (dB)	Dimensions H×W×D(mm)
IL-11	10.95~11.7	Less than 0.16	Less than 1.2	More than 18	38× 43× 25

LC LEVEL CHECKER

Model	Input Frequency Range (MHz)	Input Impedance (Ω)	Measuring Level Range (dBμ)	Temperature Range (°C)	Power Requirements	Weight (kg)	Dimensions H×W×D(mm)
LC2E	975~1275	75 (F-type Connector)	50~100	0~+40	※15 V DC, 100 mA	1.5 (Net)	89×197×192

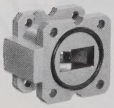
※Battery : R20×10 pcs. Available on the market.

FD-75E

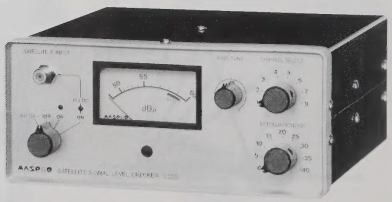
FD-120EP

SCE-975

BO-800E



IL-11



LC2E

SATELLITE EQUIPMENT

MASPRO

RF SATELLITE TUNER

Model	Input Frequency Range (GHz)	Input Impedance (Ω)	Intermediate Frequency (MHz)	Demodulation System	Tuning Voltage (V)	Power Requirements (V mA)	Dimensions H×W×D(mm)
RF-800S	0.95~1.75	50 (N-Type Connector)	400	PLD	1~15	⊕15 300 ⊖15 20	25× 75×153

SRE SATELLITE RECEIVERS

Model	Input Frequency Range (GHz)	Intermediate Frequency (MHz)	Frequency Selection	Power Requirements (V)	Power Consumption (W)	Dimensions H×W×D(mm)
SRE-800A	0.95~1.75	400	1 MHz Step PLL Freq. Synthesized Tuning	220~240 AC (50 Hz)	40	43.7×480×390
〃 -90R		402.78			35	70×300×190

SR SATELLITE RECEIVERS

SR-500 : Set-top Type, SR-500R : Rack Mount Type

SR-500	0.95~1.475	400	24 Channels (Voltage Synthesized Tuning)	Specify when ordering	30	54×425×390
〃 -500R						49×480×390

BPF BANDPASS FILTER

For SRE-800A

Model	Center Frequency (MHz)	Bandwidth (MHz)	Insertion Loss (dB)	Dimensions H×W×D(mm)
BPF400-27	400	27	3	27× 50× 51

LA SATELLITE LINE AMPLIFIERS

Model	Input Frequency Range (GHz)	Gain／Flatness (dB) (Full-band & per Ch.)	Input／Output VSWR	Noise Figure (dB)	3rd Order Intermodulation (dBc)	Dimensions H×W×D(mm)
LA-750E	0.95~1.7	20／±2, ±1	Less than 2	Less than 6	⊖50 at Output Level ⊖20 dBm (2-Tone)	40×134× 26
〃 -750ET		Tilt 20 at 1.7 GHz	Less than 2.5	Less than 8	⊖55 at Output Level ⊖20 dBm (2-Tone)	

SS-T SATELLITE AMPLIFIER

Model	Input Frequency Range (GHz)	Distribution Gain ／Flatness (dB)	3rd Order Intermodulation (dBc)	Noise Figure (dB)	Power Requirements (V)	Dimensions H×W×D(mm)
SS-4WET	0.95~1.7	8／±1.5 (Tilt 0.95 GHz), 8／±1.5 (Tilt 1.7 GHz)	⊖55 at Input Level ⊖20 dBm (2-Tone)	Less than 8	220~240 AC (50/60 Hz)	43.7×480×227

Additional Splitter Model **SS-4WET-AU** is also available.

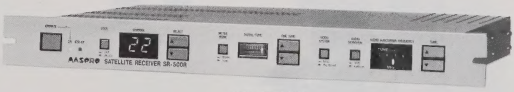
RF-800S

SRE-800A

SRE-90R

BPF400-27

LA-750ET



SR-500R

SS-4WET

SS SATELLITE ACTIVE 4-WAY SIGNAL SPLITTER

Model	Input Frequency Range (GHz)	Distribution Gain / Flatness (dB) (Full-band & per Ch.)	3rd Order Intermodulation (dBc)	Noise Figure (dB)	Power Requirements (V)	Dimensions H×W×D(mm)
SS-4WE	0.95~1.75	0/(±1.5, ±0.5)	⊖55 at Input Level ⊖20 dBm (2-Tone)	Less than 8	220~240 AC (50/60 Hz)	43.7×480×227

Additional Splitter Model **SS-4WE-AU** is also available.

SPN SATELLITE SPLITTERS

Indoor Use • N-type Connector
One Terminal Power Passing (0.5 A at 30 V AC or 15 V DC)

Type	Model	Input Frequency Range (GHz)	Splitting Loss (dB)	Isolation (dB)	Input/Output VSWR	Dimensions H×W×D(mm)
2-way	**2SPN8**	0.95~1.75	3.8	More than 20	Less than 1.5	78×116×26
4-way	**4SPN8**		6.8			

LPM POLAR MOUNT

Model	Elevation Variable Range (°)	Azimuth Variable Range (°)	Suitable Mast Diameter (mm)	Suitable Actuator	Surface Treatment	Weight (kg)
LPM76	0~62 (Latitude 0 up to 61)	True South ±80	φ76.3	Model No. CIC-24	Zinc Hot-dipping	Approx. 20

PS POLAR SWITCHER CONTROL BOX

Model	Input Frequency Range (GHz)	Insertion Loss (dB)	VSWR	Control Pulse-width Range (m/sec)			Input/Output Impedance (Ω)	Dimensions H×W×D(mm)
				HORIZONTAL	VERTICAL	SKEW		
PS-8CN	0.95~1.75	2.5	1.1~2	0.45~1.4	0.85~1.8	0~0.55	50 (N-type Connector)	103×128×45

VH V/H SWITCHERS

VH-8SS : V/H Select Switch, VH-8ST : V/H Switch Terminal

Model	Input Frequency Range (GHz)	Insertion Loss (dB)	Isolation (dB)	VSWR	Control Switching Voltage (V)	Impedance (Ω)	Dimensions H×W×D(mm)
VH-8SS	0.95~1.75	2	30~50	1.2~2	DC ⊕5 (Horizontal Mode) 0 (Vertical Mode)	50 (N-type Connector)	78×116×35
〃 **-8ST**		2.5	—	1.2~1.8			103×128×44

ADL ANTENNA DIRECTION AUTOMATIC LOCK SYSTEM

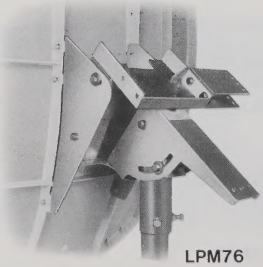
For **CS600, CS600S**

Model	Power Cylinder				Power Cylinder Controller		Remote Controller	
	Stroke Length (m)	Thrust (t)	Weight (kg)	Dimensions H×W×D(mm)	Weight (kg)	Dimensions H×W×D(mm)	Weight (kg)	Dimensions H×W×D(mm)
ADL6	ELEVATION 1	1.5	Approx. 65	299×170×1494	Approx. 3	365×256×138	Approx. 2	59×314×229
	AZIMUTH 1.5		Approx. 72	299×170×2044				

SS-4WE

2SPN8

4SPN8


LPM76

VH-8SS

VH-8ST

Power Cylinder
Power Cylinder Controller
Remote Controller
ADL6

SPCA SPLITTERS

Indoor/Outdoor Use • Plastic Housing
One Terminal Power Passing (1 A at 30 V AC or 15 V DC)

VHF { E ch 2 12•FM / A ch 2 ~ 13•FM / C ch 1 ~ 12•FM } UHF { E ch 21 57 / A ch 14 63 / C ch 13 ~ 44 }

Type	Model	Impedance (Ω) Input	Impedance (Ω) Output	Splitting Loss (dB) VHF	Splitting Loss (dB) UHF	Splitting Loss (dB) 1035 ~ 1335 MHz	Isolation Out-to-Out (dB) VHF	Isolation Out-to-Out (dB) UHF	Isolation Out-to-Out (dB) 1035 ~ 1335 MHz	VSWR VHF	VSWR UHF	VSWR 1035 ~ 1335 MHz	Symbol	Dimensions H×W×D(mm)
2-way	2SPCA	75		3.8	4.5	5.2	20 ~ 40							86× 92×46
3-way	3SPCA			6	7.5	8.8	20 ~ 35	18 ~ 35	15 ~ 25	1.2 ~ 1.5	1.2 ~ 1.6	1.2 ~ 1.8		93×114×54
4-way	4SPCA			7.5	8.7	9.7								89×114×54

D SPLITTER

Indoor Use • Simple Type

2-way	2D7	75		3.5	4	4.8	20 ~ 40	18 ~ 30	15 ~ 30	1.1 ~ 1.4	1.2 ~ 1.6	1.2 ~ 1.8		58 × 57 × 25

SP SPLITTERS

Indoor Use • One Terminal Power Passing (1 A at 30 V AC or 15 V DC)

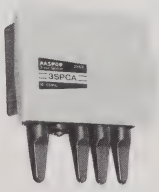
2-way	2SP		3.5	4.5	5.2								80× 60×30
3-way	3SP	75	5.9	7.1	8.1	20 ~ 40	18 ~ 35	15 ~ 35	1.1 ~ 1.4	1.2 ~ 1.6	1.2 ~ 1.8		
4-way	4SP		7.2	8.3	9.5								80× 85×32

SPFN SPLITTERS

Indoor Use • F-type Connector • One Terminal Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω) Input	Impedance (Ω) Output	Splitting Loss (dB) 10 ~ 47 MHz	Splitting Loss (dB) VHF	Splitting Loss (dB) UHF	Splitting Loss (dB) 950 ~ 1450 MHz	Isolation Out-to-Out (dB) 10 ~ 47 MHz	Isolation Out-to-Out (dB) VHF	Isolation Out-to-Out (dB) UHF	Isolation Out-to-Out (dB) 950 ~ 1450 MHz	VSWR 10 ~ 47 MHz	VSWR VHF	VSWR UHF	VSWR 950 ~ 1450 MHz	Symbol	Dimensions H×W×D(mm)
2-way	2SPFN	75		4	3.8	4.3	4.8	20	25	20	20	1.2	1.1	1.1	1.2		63× 71×26
3-way	3SPFN			6	5.8	7	8.3										
4-way	4SPFN			7	6.8	8	9.5	35	40	40	35	1.8	1.4	1.5	1.7		66×116×26
6-way	6SPFN			9.2	9	10	12.2										66×118×26
8-way	8SPFN			10.5	10.3	12	13.8										

2SPCA

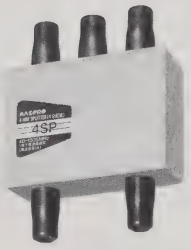

3SPCA

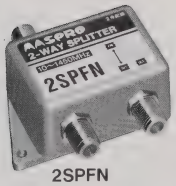
4SPCA

2D7

2SP

3SP


4SP


2SPFN

3SPFN

6SPFN

8SPFN

MASPRO

VHF (E ch 2 12·FM / A ch 2 · 13·FM / C ch 1 12·FM) UHF (E ch 21 57 / A ch 14 63 / C ch 13 44)

DC DIRECTIONAL COUPLERS

Indoor Use · Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω) Input	Output	BR (Tap)	Insertion Loss (dB) VHF	UHF	1035 1335 MHz	Tap Value (dB) VHF	UHF	1035 1335 MHz	Isolation Tap-to-Out (dB) VHF	UHF	1035 1335 MHz	Isolation Tap-to-Tap (dB) VHF	UHF	1035 1335 MHz	VSWR VHF	UHF	1035 1335 MHz	Symbol	Dimensions H×W×D(mm)
1-way	1DC10	75			1.5	2	2.5														
2-way	2DC10				2.5	3	3.5	12	13	14	25 ~45	20 ~40	18 ~35	20 ~40	18 ~35	15 ~35	1.1 ~1.4	1.2 ~1.6	1.2 ~1.8		80× 60×30
4-way	4DC10				4	5	6														80× 85×32

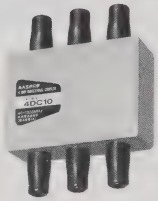
DC-FN DIRECTIONAL COUPLERS

Indoor Use · F-type Connector
Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω) Input	Output	BR (Tap)	Insertion Loss (dB) 10 47 MHz VHF	UHF	950 1450 MHz	Tap Value (dB) 10 47 MHz VHF	UHF	950 1450 MHz	Isolation Tap-to-Out (dB) 10 47 MHz VHF	UHF	950 1450 MHz	Isolation Tap-to-Tap (dB) 10 47 MHz VHF	UHF	950 1450 MHz	VSWR 10 47 MHz VHF	UHF	950 1450 MHz	Symbol	Dimensions H×W×D(mm)
1-way	1DC10FN	75			1.4	1.2	1.8	2.2	10		11										
	" 15FN				0.8	0.7	1.1	1.5	15		16										
2-way	2DC10FN				2	1.8	2.2	2.8	10		11										63× 71×26
	" 15FN				1.3	1.1	1.4	2	15		16										
	4DC10FN				3.5	3.3	4.3	5.5	10		11	12									
4-way	" 15FN				1.4	1.2	1.8	2.8	15		16										
	" 20FN				1.2	1.1	1.5	1.8	20		21	22									66×116×26

1DC10

2DC10


4DC10

1DC15FN

2DC10FN

4DC15FN

DCC-N WALL OUTLETS

Tap-off : Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω) IN	OUT	TV	Number of TV Outlets	Insertion Loss (dB) 10 47 MHz VHF	UHF	950 1450 MHz	Tap Value (dB) 10 47 MHz VHF	UHF	950 1450 MHz	Isolation Tap-to-Out (dB) 10 47 MHz VHF	UHF	950 1450 MHz	Isolation Tap-to-Tap (dB) 10 47 MHz VHF	UHF	950 1450 MHz	VSWR 10 47 MHz VHF	UHF	950 1450 MHz	Symbol	Dimensions H×W×D(mm)
Tap-off	DCC7N	75	75		1	1.3	1.1	1.4 2.4	11	11	12 13	25 ~40	30 ~45	25 ~40	20 ~35							112×36×43
Tap-off with Terminator	" 7RN	75	—	75		—	—	— —	8.5	8.5	9 10	—	—	—	—	—	—	—	—	1.2 ~1.8	1.1 ~1.4	1.1 ~1.5	1.2 ~1.8	$\circ_R$	
Terminal	" 7TN		—			0.2	0.2	0.3 0.8	—	—	— —													$\circ$	

DCC-FN··FDN WALL OUTLETS

TV Terminal : F-type Connector
Tap-off : Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

Tap-off	DCC7FN	75				1.3	1	1.4	2.3	11	11	12	13	25 ~40	30 ~45	25 ~40	20 ~35								$\circ$
Tap-off with Terminator	" 7FRN				1 (F-type)					10	10	11	12												$\circ_R$
Terminal	" 7FTN					0.2	0.2	0.3	0.5																$\circ$
Tap-off	" 77FN	75	75	75		1.4	1.1	1.5	2.5	13	13	14	14	25 ~40	30 ~45	25 ~40	20 ~35								$\circ$
Tap-off with Terminator	" 77FRN				2 (F-type)					10	10	11	12	20 ~35	25 ~40	20 ~40	20 ~35	1.2 ~1.8	1.1 ~1.4	1.1 ~1.5	1.2 ~1.8				$\circ_R$
Terminal	" 77FTN					3.5 ※	3.5 ※	4 ※	5.5 ※																$\circ$
★ Tap-off	" 7FDN	75			1 (F-type)	1.4	1.2	1.4	2.3	11	11	12	13	25 ~40	30 ~45	25 ~40	20 ~35								$\circ_{PS}$
★ Terminal	" 7FTDN	—				0.2	0.2	0.3	0.6																$\circ_{PS}$

★Power-insertable Type (1 A at 30 V AC or 15 V DC) IN : Input, OUT : Output ※Splitting Loss

DCC7N

DCC7FN

Flush Plate (1 Terminal)
Model **WN7201M**
(Sold Separately)

Flush Plate (2 Terminals)
Model **WN7202M**
(Sold Separately)

DCC77FN

DCC7FDN

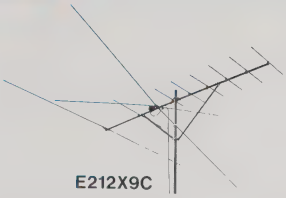
MASPRO

E212X-C·A213X-C·C112X-C VHF CONICAL COLOR TENNAS

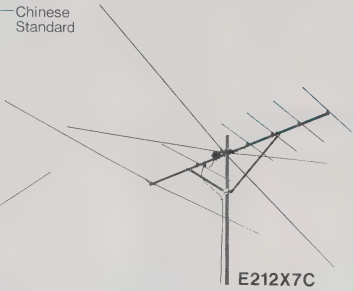
Ech2~12 Ach2~13 Cch1~12 75Ω

Model		
E212X5C	A213X5C	C112X5C
〃 7C	〃 7C	〃 7C
〃 9C	〃 9C	〃 9C

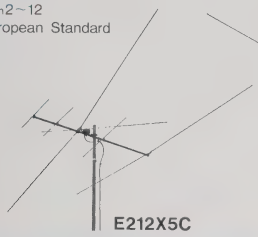
- American Standard / Chinese Standard
- 75Ω
- Number of Elements
- Type
- ch2~12
- European Standard



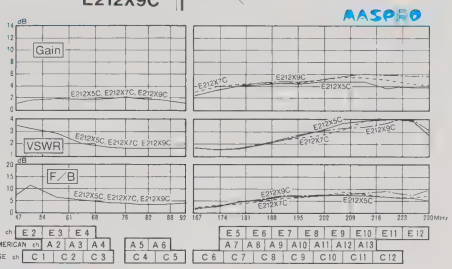
E212X9C



E212X7C



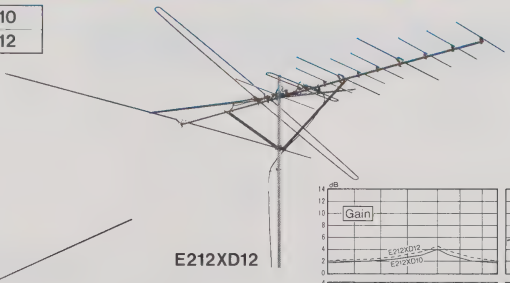
E212X5C


MASPRO
Gain
VSWR
F/B
E212X5C, E212X7C, E212X9C
EUROPEAN ch E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12
AMERICAN ch A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13
CHINESE ch C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12

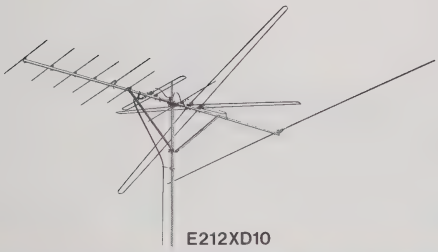
E212XD·A213XD·C112XD VHF SUPER CONICAL COLOR TENNAS

Ech2~12 Ach2~13 Cch1~12 300Ω

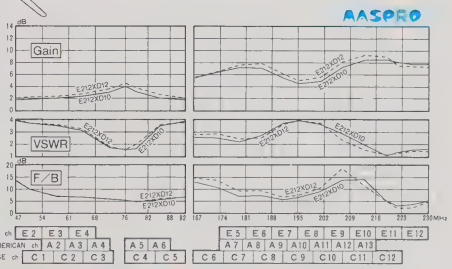
E212XD10	A213XD10	C112XD10
〃 12	〃 12	〃 12



E212XD12



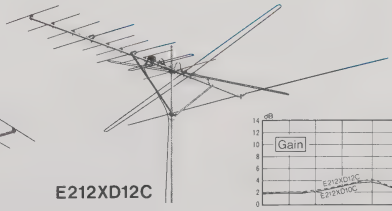
E212XD10


MASPRO
Gain
VSWR
F/B
E212XD12, E212XD10
EUROPEAN ch E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12
AMERICAN ch A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13
CHINESE ch C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12

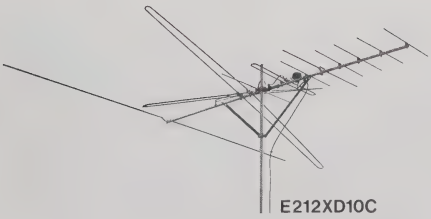
E212XD-C·A213XD-C·C112XD-C VHF SUPER CONICAL COLOR TENNAS

Ech2~12 Ach2~13 Cch1~12 75Ω

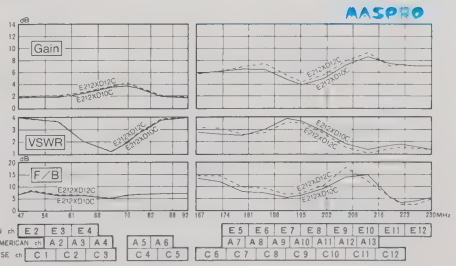
E212XD10C	A213XD10C	C112XD10C
〃 12C	〃 12C	〃 12C



E212XD12C



E212XD10C


MASPRO
Gain
VSWR
F/B
E212XD12C, E212XD10C
EUROPEAN ch E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12
AMERICAN ch A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13
CHINESE ch C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12

VHF COLOR ANTENNAS for Home Use

MASPRO

E24T·A26T·C13T VHF LOW BAND COLOR TENNAS

Ech2~4 Ach2~6 Cch1~3 75·300Ω

Model
E24T3
〃 5
〃 7

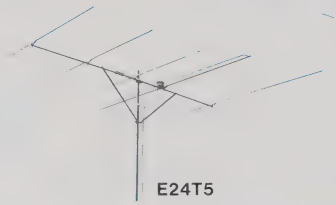
Number of Elements
Type
ch2~4
European Standard

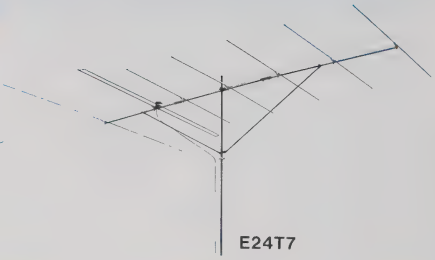
A26T3
〃 5
〃 7

American Standard

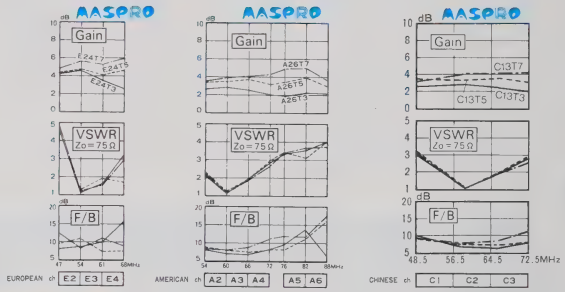
C13T3
〃 5
〃 7

Chinese Standard


E24T5


E24T7

E24T3



E512W·A713W·C612W VHF HIGH BAND COLOR TENNAS

Ech5~12 Ach7~13 Cch6~12 300Ω

E512W3	A713W3	C612W3
〃 5	〃 5	〃 5
〃 8	〃 8	〃 8
〃 10	〃 10	〃 10
〃 103	〃 103	〃 103
〃 133	〃 133	〃 133
〃 163	〃 163	〃 163
〃 167	〃 167	〃 167

E512W3

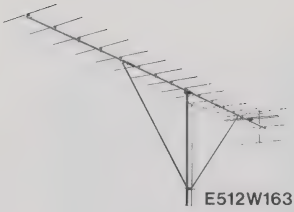
E512W5

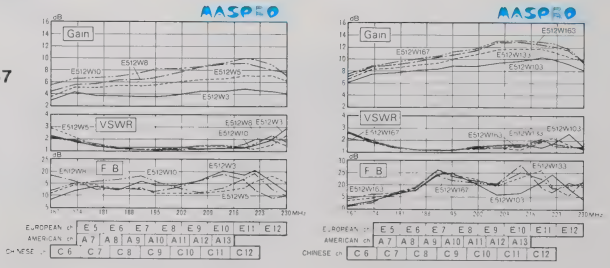
E512W8

E512W10

E512W103

E512W167


E512W163



VHF COLOR ANTENNAS for Home Use

MASPRO

E512C・A713C・C612C VHF HIGH BAND COLOR TENNAS

Ech 5～12　Ach 7～13　Cch 6～12　75・300Ω

Model		
E512C5	A713C5	C612C5
〃 8	〃 8	〃 8
〃 10	〃 10	〃 10
〃 53	〃 53	〃 53
〃 83	〃 83	〃 83
〃 103	〃 103	〃 103
〃 143	〃 143	〃 143
〃 167	〃 167	〃 167

E510C203

- Chinese Standard
- American Standard
- Number of Reflectors
- Number of Elements
- Type
- ch 5～10
- European Standard

E512C5

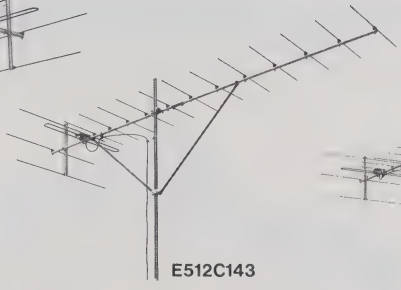
E512C8

E512C10

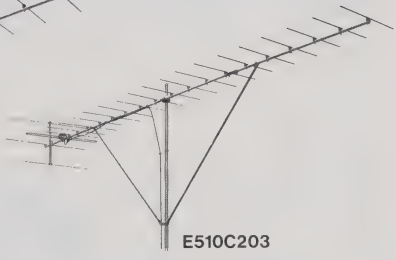
E512C53

E512C83

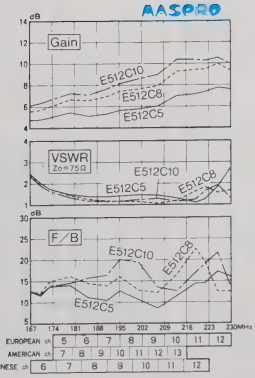
E512C103

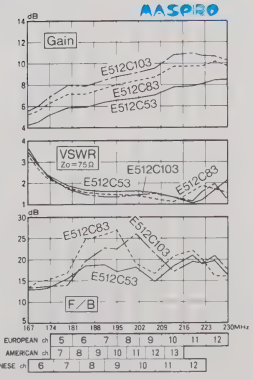


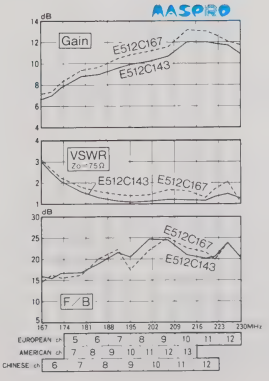
E512C143

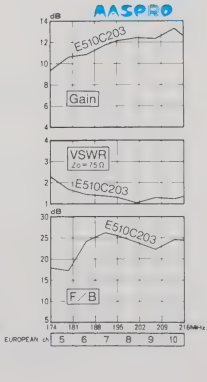


E510C203









VHF COLOR ANTENNAS for Home Use

MASPRO

E512A・A713A・C612A VHF HIGH BAND SUPER COLOR TENNAS

E ch5~12　A ch7~13　C ch6~12　75・300Ω

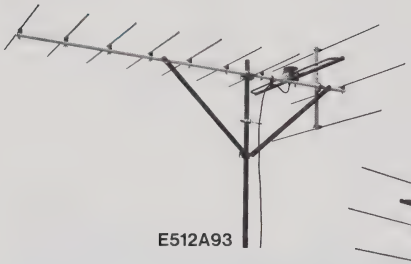
2-conductor type radiator secures high durability.

Model		
E512A63	A713A63	C612A63
〃 93	〃 93	〃 93
〃 113	〃 113	〃 113

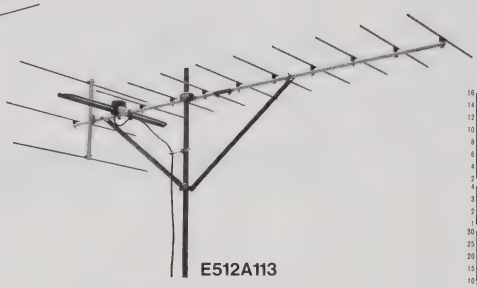
- Chinese Standard
- American Standard
- Number of Reflectors
- Number of Elements
- Type
- ch5~12
- European Standard

2-conductor Type Radiator

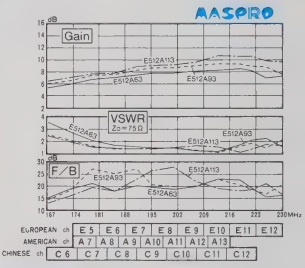
E512A63



E512A93



E512A113



E512GK・A713GK・C612GK VHF HIGH BAND GHOST FREE ULTRA-SUPER COLOR TENNAS

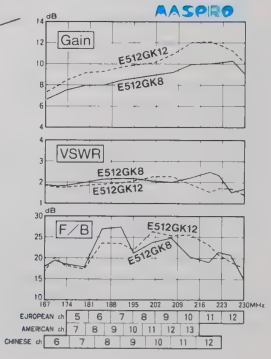
E ch5~12　A ch7~13　C ch6~12　75Ω

Most effectively used for removing ghosts (double image) caused by reflected waves coming from the rear of the antenna.

E512GK8	A713GK8	C612GK8
〃 12	〃 12	〃 12

E512GK8

E512GK12



UHF COLOR ANTENNAS for Home Use

MASPRO

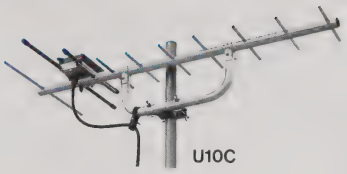
U-C··CH UL-C··CH SUPER UHF COLOR TENNAS

Ech21~57 Ach14~63 Cch13~44 Ech21~44 Ach14~45 Cch13~31 75·200Ω

Model
U8C
〃 10C
〃 144C
〃 204C
〃 144CH

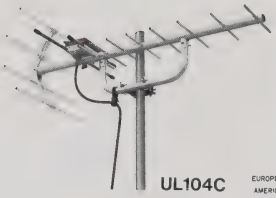
UL8C
〃 104C
〃 144C
〃 204C
〃 144CH

U8C
UL8C

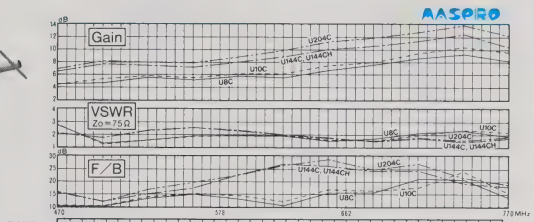


U10C

U144C
UL144C

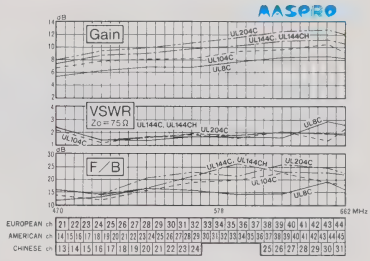


UL104C



U144CH
UL144CH

U204C
UL204C



LS LSL ULTRA-SUPER UHF COLOR TENNAS

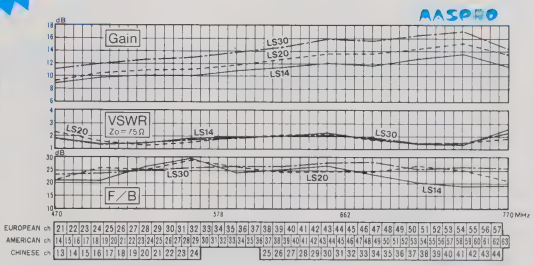
Ech21~57 Ach14~63 Cch13~44 Ech21~44 Ach14~45 Cch13~31 75·200Ω

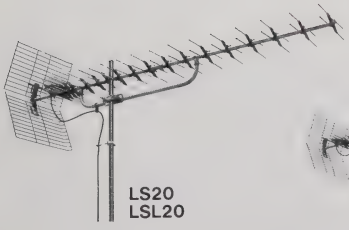
Super high gain antenna catches weak TV signals sharply. Multi-Director and large screen reflector provide sharp directivity and good front-to-back ratio (F/B) shutting out ghosts and flutters.

LS14
〃 20
〃 30

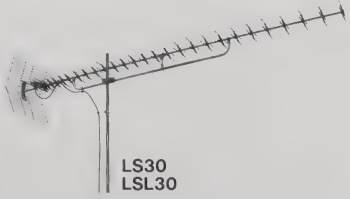
LSL14
〃 20
〃 30

LS14
LSL14

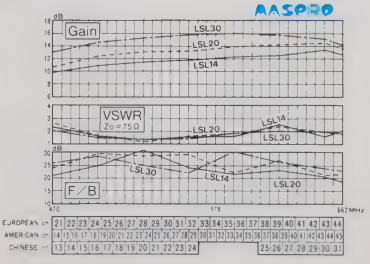




LS20
LSL20



LS30
LSL30



VHF·UHF COLOR ANTENNAS for Home Use

MASPRO

E257C·A263C·C144C VHF · UHF COLOR TENNA

E ch2~57　A ch2~63　C ch1~44　75·200 (300) Ω

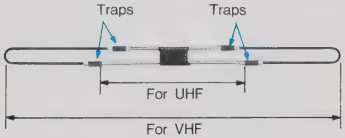
Model		
E257C511	A263C511	C144C511

- C144C511: Chinese Standard
- A263C511: American Standard
- E257C511: Number of UHF Elements
- E257C511: Number of VHF Elements
- E257C511: Type
- E257C511: ch2~57
- E257C511: European Standard

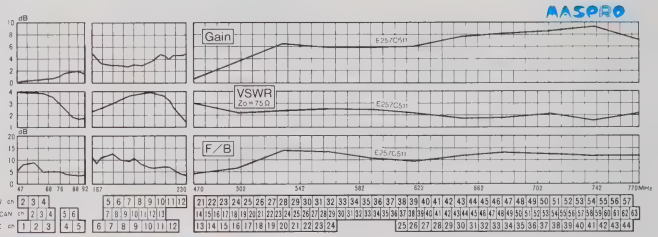
E257C511

MULTI-DIPOLE

A newly developed unprecedented multi-dipole makes possible both VHF and UHF reception while using only one dipole thanks to four traps.



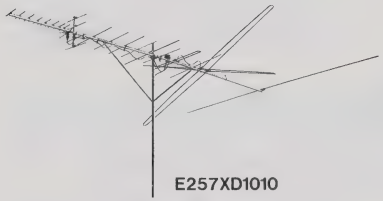
VU Separator Model **SR73** is sold separately.



E257XD·A263XD·C144XD VHF · UHF COLOR TENNA

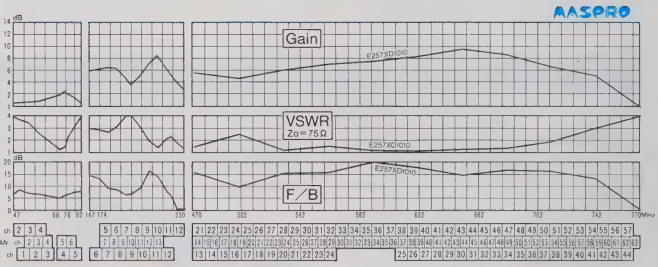
E ch2~57　A ch2~63　C ch1~44　75·200 (300) Ω

E257XD1010	A263XD1010	C144XD1010



E257XD1010

VU Separator Model **SR73** is sold separately.



E557C·A763C·C644C VHF HIGH BAND · UHF COLOR TENNA

E ch5~57　A ch7~63　C ch6~44　75·200 (300) Ω

The Angle Adjustor attached to the UHF antenna enables it to be adjusted up to ±45° max.

E557C58	A763C58	C644C58

E557C58

VU Separator Model **SR73** is sold separately.

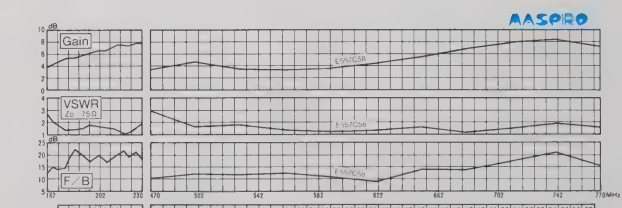


TABLE ANTENNAS

MASPRO

TABLE TENNAS

VHF·UHF & FM 300Ω

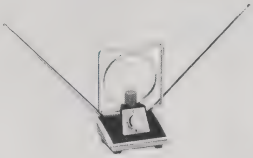
Model
YL2
〃 8
HL2
SST2
〃 5
〃 7
〃 33
〃 86
〃 6
TEP843
LUX21

YL2

YL8 (VHF & FM)

HL2 (VHF & FM)

SST2
(With 12-position Tuning Control)
Body Color : Black or White
(Specify color when ordering)

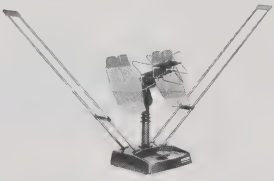


SST5
(With 12-position Tuning Control)
Body Color : White or Pink
(Specify color when ordering)

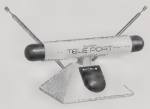
SST7
(With 12-position Tuning Control)

SST33
(With 12-position Tuning Controls for control each VHF & UHF band respectively.
Body/Tuning Control Knob Color Combination : Black/Black, White/Red or Black/Red
(Specify color combination when ordering)

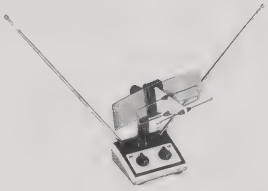
SST86
(With 12-position Tuning Control)



SST6
(With 12-position Tuning Control)



TEP843
(With 12-position Tuning Control)
Body Color : Black or White
(Specify color when ordering)



LUX21
(With 12-position Tuning Controls for control each VHF & UHF band respectively.

TABLE TENNAS WITH BUILT-IN BOOSTER

- Connected VU separator model **SR73** to output cable (1 m).
- With AC Adaptor

VHF·UHF & FM 300Ω

SST86A
TEP843A

SST86A
(With 12-position Tuning Control)

TEP843A
(With 12-position Tuning Control)
Body Color : Black or White

SR73

AC Adaptor

FM ANTENNAS

Outdoor FM antenna is needed for clear FM sound reception.

EFM · AFM FM TENNAS

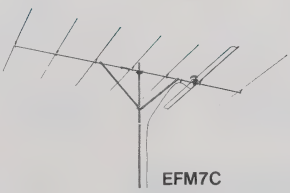
75·300Ω (EFM3/AFM3 : 300Ω)

EFM2	AFM2
〃 3	〃 3
〃 5C	〃 5C
〃 7C	〃 7C

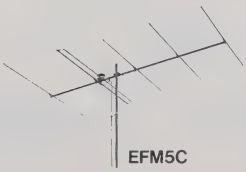
EFM3

EFM2

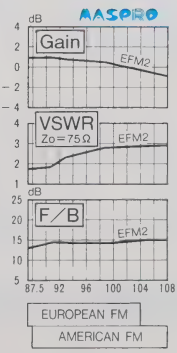
For both indoor and outdoor use
Phase Difference Feed Type

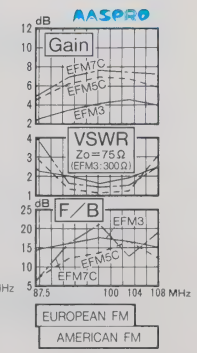


EFM7C



EFM5C





ANTENNA ACCESSORIES for Home Use

MASPRO

● ROOF MOUNTS

Model	Adaptable Mast Size
RB33	22～34 mm
〃 39	22～34 mm
〃 45	22～32 mm

● WALL MOUNT

SB25	16～25 mm

● MAST BASES

MB25	25 mm
〃 32	32 mm

● MASTS

Model	O.D.•Length
M130N	φ22 mm•1.3 m
〃 170N	φ22 mm•1.7 m
〃 170GA	φ25 mm•1.7 m

● MAST JOINTS

Model	Adaptable Mast Size
MJ25	25 mm
〃 32	32 mm
〃 3225	32 mm & 25 mm

● GUY RINGS

RS25	25 mm
〃 32	32 mm

Heavy-duty Type

RSG25	25 mm
〃 32	32 mm

● OFFSET BOOM

Model	Adaptable Mast Size
KSB50	22～32 mm

● ANTENNA DIRECTION FIXING BOOM

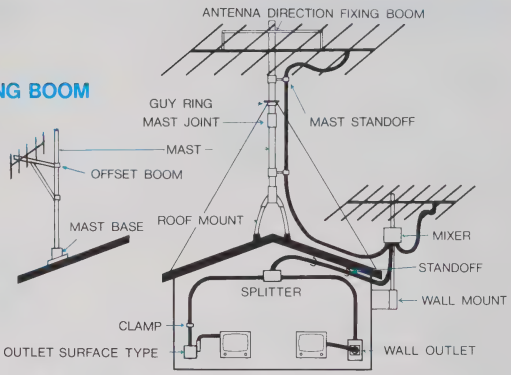
Model	Adaptable Boom Size
HKB22	22 mm

● FEEDER ACCESSORIES

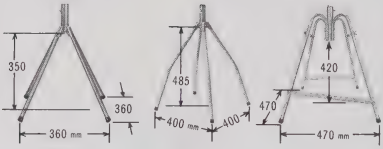
MAST STANDOFF	60.5 mm Max.
STANDOFF	

● CLAMP

CLAMP	———



ROOF MOUNTS



RB33 RB39 RB45

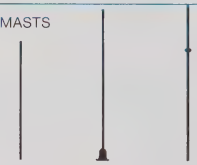
WALL MOUNT

SB25

MAST BASES

MB25 MB32

MASTS



M130N M170N M170GA

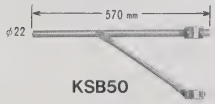
MAST JOINTS

MJ25 MJ32 MJ3225

GUY RINGS

RS32 RSG32

OFFSET BOOM



KSB50

ANTENNA DIRECTION FIXING BOOM

HKB22

FEEDER ACCESSORIES

STANDOFF

MAST STANDOFF

CLAMP

CLAMP

TWINLEADS & COAXIAL CABLES

TWINLEADS

Model	Length／Coil (m)	Impedance (Ω)	Attenuation (dB／100 m) 50 MHz	100 MHz	200 MHz	700 MHz	Twisted Pitch (mm)	Dielectric O.D. (mm)	Description
F300	100	300±30	2.9	4.5	6.8	16	40±5	9.5	For VHF
F300GA			1.4	2	4	12		12	
UF200W		200±20	2.6	4	6.5	16		10.7	For UHF

COAXIAL CABLES

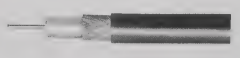
Model	Length／Coil (m)	Impedance (Ω)	Nominal Attenuation Value (dB／100 m at 20 °C) 50 MHz	100 MHz	200 MHz	700 MHz	1300 MHz	Outer Conductor Braid Size (mm)	Braid Pitch (mm)	Jacket O.D. (mm)
3CFVR	100	75 ± 3	8	11	15	30		5×16	26^{+0}_{-2}	5.4±0.5
5CFVR			4.7	6.7	9.8	20.7		5×24	40^{+0}_{-2}	7.4±0.5
5CFVA			4.6	6.5	9.5	19.6		7×24	44^{+0}_{-2}	
S5CFV			4.5	6.4	9.4	19.4	28.1		42^{+0}_{-2}	
S7CFV			3	4.6	6.8	14.2	21.7	8×24	48^{+0}_{-2}	10.2±0.5

● Maximum attenuation value will be remained less than 115 % of the nominal value.

F300GA

UF200W

3CFVR



S5CFV

MIXERS for Home Use

MASPRO

The use of mixer makes it easy to wire cable into indoors with a single lead-in cable from two or three antennas.

VHF(L) { E ch 2 - 4, A ch 2 - 6, C ch 1 - 5 } VHF(H) { E ch 5 - 12, A ch 7 - 13, C ch 6 - 12 } UHF { E ch 21 - 57, A ch 14 - 63, C ch 13 - 44 }

LH V MIXER

VHF LOW BAND + VHF HIGH BAND • Indoor/Outdoor Use • Plastic Housing

Model	Impedance (Ω) Input VHF(L)	Input VHF(H)	Output	Insertion Loss (dB)	Out-of-Band Rejection (dB)	VSWR	Description	Symbol	Dimensions H×W×D(mm)
LH77	75			0.5	20~40	1.2~1.6	—		86× 92×46

AS V MIXER

VHF ALL-CHANNEL + VHF SINGLE-CHANNEL • Indoor/Outdoor Use • Plastic Housing
Power Passing (1 A at 30 V AC or 15 V DC)

Model	Impedance (Ω) Input All ch.	Input Single ch.	Output	Insertion Loss (dB)	Out-of-Band Rejection (dB)	VSWR	Description	Symbol	Dimensions H×W×D(mm)
AS77	75			2~4.5	14~30	1.5~2.5	Specify Channel ※		86× 92×46

Impossible adjacent channel mixing.

※Specify all receiving channels. (When FM reception, specify frequency.)

UU U MIXER

UHF + UHF • Indoor/Outdoor Use • Plastic Housing

Model	Impedance (Ω) Input	Output	Insertion Loss (dB)	Isolation (dB)	VSWR	Description	Symbol	Dimensions H×W×D(mm)
UU33	200		5.5	20~40	1.5~2	Hybrid Transformer Type		89×114×54

● Gain will be increased 0.5 2.4dB when the reception antennas are stacked on the same frequency.

MS VU MIXER & VU SEPARATOR SET

VHF + UHF • Indoor/Outdoor Use • Plastic Housing

Model	Impedance (Ω) Input VHF	Input UHF	Output	Insertion Loss (dB) VHF	Insertion Loss (dB) UHF	Out-of-Band Rejection (dB) VHF	Out-of-Band Rejection (dB) UHF	VSWR VHF	VSWR UHF	Description	Symbol	Dimensions H×W×D(mm)
MS377	75	75•200	75	1	1.5~2.5	20~40		1.6~2	2.2~2.5	※ Mixer's Data Only		86× 92×46

※Data for VU Separator **(SR73)** : Please refer to page 26.

UV VU MIXER

VHF + UHF • Indoor/Outdoor Use • Plastic Housing • UHF Input Power Passing
(1 A at 30 V AC or 15 V DC)

Model	Impedance (Ω)	Insertion Loss (dB) VHF	Insertion Loss (dB) UHF	Isolation (dB)	VSWR VHF	VSWR UHF	Description	Symbol	Dimensions H×W×D(mm)
UV77D	75	1	1.5	25~35	1.2~1.6	1.2~1.8	–		89×114×54

W VU MIXER

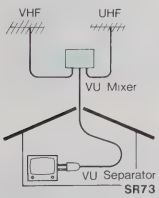
VHF•UHF + VHF•UHF • Outdoor Use • Plastic Housing

Model	Impedance (Ω) Input	Output	Insertion Loss (dB) VHF	Insertion Loss (dB) UHF	Isolation (dB) VHF	Isolation (dB) UHF	VSWR VHF	VSWR UHF	Description	Symbol	Dimensions H×W×D(mm)
W73N	75•200(300)		3.5~4.5	4~6	20~40	15~35	1.2~2.5		–		89×114×54

ULH VU MIXER

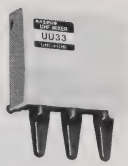
VHF LOW BAND + VHF HIGH BAND + UHF • Outdoor Use • Plastic Housing

Model	Input Impedance (Ω) VHF(L)	VHF(H)	UHF	Output Impedance (Ω)	Insertion Loss (dB) VHF(L)	VHF(H)	UHF	Out-of-Band Rejection (dB) VHF(L)	VHF(H)	UHF	VSWR VHF(L)	VHF(H)	UHF	Symbol	Dimensions H×W×D(mm)
ULH377	75		75•200	75	1		1.5~2.5	25~40			1.1~1.5		1.2~2		112×161×74



LH77

AS77



UU33

Use this mixer when vertically or horizontally stacked antennas are used for reception on the same frequency.
Also usable as an ordinary mixer.

MS377
(UV377N+SR73)

UV77D

W73N

Use this mixer when vertically or horizontally stacked antennas are used for reception on the same frequency.
Also usable as an ordinary mixer

ULH377

VHF BOOSTERS for Home Use

MASPRO

Use in areas where VHF field strength is not enough for TV reception.

B V BOOSTER — Outdoor Use • Plastic Housing

VHF(L) { E ch 2 4 / A ch 2 ~ 6 / C ch 1 ~ 5 } VHF(H) { E ch 5 12 / A ch 7 ~ 13 / C ch 6 ~ 12 } UHF { E ch 21 57 / A ch 14 ~ 63 / C ch 13 ~ 44 }

Model	Impedance (Ω) Input	Output	P.S. Output	Gain (dB) VHF•FM	Max. Output Level (dBμ) (XM ⊖40 dB)	Noise Figure (dB)	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
B30T	75•300	75	75•300	26 ~ 34	100	1.5 ~ 3.5	Specify when ordering	1.3	With P.S. Part	⊣▷	B 89×114×54 P.S. 50×160×100

XM : Cross Modulation

B : Booster
P.S.: Power Supply

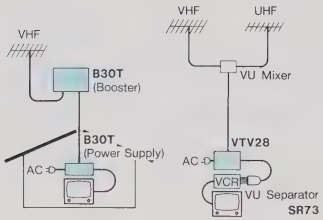
B V BOOSTERS — Indoor/Outdoor Use • Plastic Housing • Built-in UHF Mixer

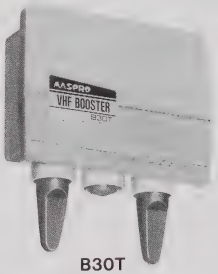
Model	Impedance (Ω) Input	Output	P.S. Output	Gain (dB) VHF(L)	VHF(H)	UHF	Max. Output Level (dBμ) (XM ⊖40 dB)	Noise Figure (dB)	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
B38TG	VHF : 75•300 UHF : 75•200	75	75•300 (200)	28 ~ 32	33 ~ 38	Pass	103	1.5 ~ 3	Specify when ordering	2.5	With P.S. Part	⊣▷	B 130×199×73 P.S. 50×160×100
★ B40TS	VHF : 75 UHF : 75•200			34 ~ 38	35 ~ 40			1 ~ 1.5				⊣▷	B 122×142×54 P.S. 36×140×90

★Switchable VHF•UHF separate input and VHF•UHF mixed input.

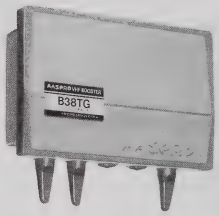
VTV V VIDEO BOOSTERS — Indoor Use • Built-in UHF Pass Circuit

Model	Impedance (Ω) Input	Output	Gain (dB) VHF(L)•FM	VHF(H)	UHF	Max. Output Level (dBμ) VHF	UHF	Noise Figure (dB) VHF	UHF	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
VTV28	75•200(300)	75 (2 Terminals)	24 ~ 29		Pass	98		1.8 ~ 4		Specify when ordering	1.5	Built-in Gain Control	⊣▷	38×160×100
〃 30			24 ~ 30								1.2			41×175×105

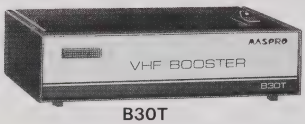




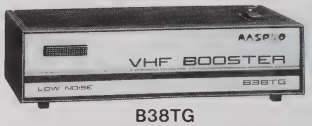
B30T
(Booster)



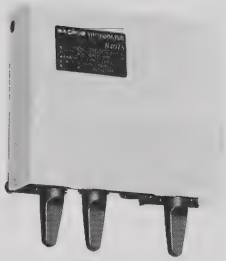
B38TG
(Booster)



B30T
(Power Supply)



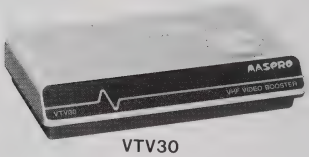
B38TG
(Power Supply)



B40TS
(Booster)

B40TS
(Power Supply)

VTV28



VTV30

UHF BOOSTERS for Home Use

MASPRO

Use in areas where UHF field strength is not enough for TV reception.

UB U BOOSTERS

Indoor/Outdoor Use • Plastic Housing • Built-in VHF Mixer

VHF { E ch 2 12•FM / A ch 2 13•FM / C ch 1 12•FM } UHF { E ch 21 ~ 57 / A ch 14 ~ 63 / C ch 13 44 }

Model	Impedance (Ω) Input	Impedance (Ω) Output	Impedance (Ω) P.S. Output	Gain (dB)	Max. Output Level (dBμ) (XM ⊖40 dB)	Noise Figure (dB)	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
UB30T	VHF : 75•300 UHF : 75•200	75	75•300 (200)	VHF : Pass UHF : 27 ~ 33	106	1.8 ~ 2.8	Specify when ordering	2.5	With P.S. Part		B 122×142× 54 P.S. 36×140× 90
〃 30TS											
〃 38TG				VHF : Pass UHF : 33 ~ 38	103	1.9 ~ 3					B 130×199× 73 P.S. 50×160×100
★ 〃 40TS	VHF : 75 UHF : 75•200			VHF : Pass UHF : 34 ~ 40	106	1.5 ~ 2		2.2			B 122×142× 54 P.S. 36×140× 90
〃 42TG	75		75	VHF : Pass UHF : 37 ~ 43	107	1.9 ~ 3		2.6			B 130×199× 73 P.S. 50×160×100
〃 46TG				VHF : Pass UHF : 37 ~ 50	117	1.2 ~ 3					

★Switchable VHF•UHF separate input and VHF•UHF mixed input. XM : Cross Modulation

B : Booster
P.S.: Power Supply

VTU U VIDEO BOOSTERS

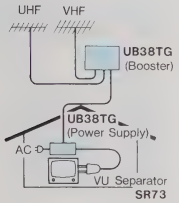
Indoor Use • Built-in VHF Pass Circuit

Model	Impedance (Ω) Input	Impedance (Ω) Output	Gain (dB) VHF	Gain (dB) UHF	Max. Output Level (dBμ) VHF	Max. Output Level (dBμ) UHF	Noise Figure (dB) VHF	Noise Figure (dB) UHF	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
VTU28	75•200(300)	75 (2 Terminals)	Pass	24 ~ 29	98		1.8 ~ 4		Specify when ordering	1.5	Built-in Gain Control		38×160×100
〃 30				24 ~ 30						1.2			41×175×105

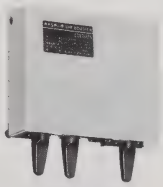
UTB U TABLE BOOSTER

Indoor Use • Built-in VHF Pass Circuit

Model	Impedance (Ω) Input	Impedance (Ω) Output	Gain (dB) VHF	Gain (dB) UHF	Max. Output Level (dBμ) VHF	Max. Output Level (dBμ) UHF	Noise Figure (dB) VHF	Noise Figure (dB) UHF	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
UTB30	75•200(300)	75 (2 Terminals)	Pass	27 32	—	98		1.9 ~ 3	Specify when ordering	1.4	Built-in Gain Control		44×191×116



UB30T
(Booster)



UB30TS
(Booster)

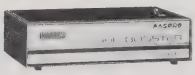
UB38TG
(Booster)

UB42TG
(Booster)

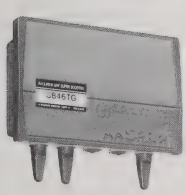
UB30T
(Power Supply)

UB30TS
(Power Supply)

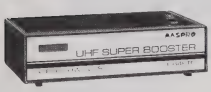
UB38TG
(Power Supply)



UB42TG
(Power Supply)



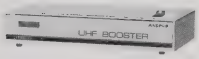
UB46TG
(Booster)



UB46TG
(Power Supply)

VTU28

VTU30



UTB30

VHF•UHF BOOSTERS for Home Use

MASPRO

Use in areas where both VHF and UHF field strength are not enough for TV reception.

WB VU BOOSTERS

Indoor/Outdoor Use • Plastic Housing

VHF(L) { E ch 2 - 4, A ch 2 - 6, C ch 1 - 5 } VHF(H) { E ch 5 - 12, A ch 7 - 13, C ch 6 - 12 } UHF { E ch 21 - 57, A ch 14 - 63, C ch 13 - 44 }

Model	Impedance (Ω) Input	Impedance (Ω) Output	P.S. Output	Gain (dB) VHF(L)•FM	Gain (dB) VHF(H)	Gain (dB) UHF	Max. Output Level (dBμ) VHF (XM ⊖40 dB)	Max. Output Level (dBμ) UHF (XM ⊖40 dB)	Noise Figure (dB) VHF	Noise Figure (dB) UHF	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
WB30T	VHF : 75•300 UHF : 75•200	75	75•300 (200)	27 ~ 33			98	106	1.5~2.5	1.8~2.8	Specify when ordering	3	Built-in Gain Control		
★ 〃 30TS															B 122×142×54
★ 〃 32TS	VHF : 75 UHF : 75•200			29 ~ 35		30 ~ 36	103	106	1 ~1.5	1.5~2		3.2			P.S. 36×140×90
★ 〃 40TS				34 ~ 38	35 ~ 40	34 ~ 40						3.3			
〃 42TG	75		75	28 ~ 34	33 ~ 40	37 ~ 43	105	107	1.5~3.5	1.9~3		2.9			B 130×199×73 P.S. 50×160×100

★Switchable VHF•UHF separate input and VHF•UHF mixed input. XM : Cross Modulation

B : Booster
P.S.: Power Supply

Model	Impedance (Ω) Input	Impedance (Ω) Output	P.S. Output	Gain (dB) VHF(L)	Gain (dB) VHF(H)	Gain (dB) UHF	Max. Output Level (dBμ) VHF (XM ⊖40 dB)	Max. Output Level (dBμ) UHF (XM ⊖40 dB)	Noise Figure (dB) VHF	Noise Figure (dB) UHF	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
WB38TG	VHF : 75•300 UHF : 75•200	75	75•300 (200)	28 ~ 32	33 ~ 38		103		1.5~3.5	1.9~3	Specify when ordering	2.7	Built-in Gain Control		B 130×199×73 P.S. 50×160×100

VTW VU VIDEO BOOSTERS

Indoor Use

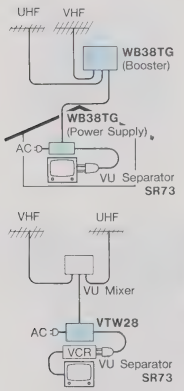
VHF { E ch 2 12, A ch 2 13, C ch 1 12 } UHF { E ch 21 57, A ch 14 63, C ch 13 44 }

Model	Impedance (Ω) Input	Impedance (Ω) Output	Gain (dB) VHF•FM	Gain (dB) UHF	Max. Output Level (dBμ) VHF	Max. Output Level (dBμ) UHF	Noise Figure (dB) VHF	Noise Figure (dB) UHF	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
VTW28	75•200(300)	75 (2 Terminals)	24 ~ 29		98		1.8~4		Specify when ordering	2.6	Built-in Gain Control		38×160×100
〃 30			24 ~ 30							2.4			41×175×105

TB VU TABLE BOOSTER

Indoor Use

Model	Impedance (Ω) Input	Impedance (Ω) Output	Gain (dB) VHF	Gain (dB) UHF	Max. Output Level (dBμ) VHF	Max. Output Level (dBμ) UHF	Noise Figure (dB) VHF	Noise Figure (dB) UHF	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
TB30	75•200(300)	75 (2 Terminals)	27 ~ 32		98		1.9~3		Specify when ordering	2.8	Built-in Gain Control		44×191×116



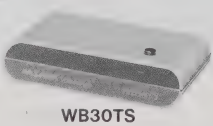
WB30T
(Booster)

WB30TS
(Booster)

WB32TS
(Booster)

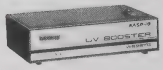
WB38TG
(Booster)

WB30T
(Power Supply)

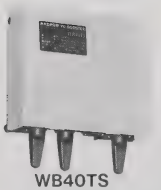


WB30TS
(Power Supply)

WB32TS
(Power Supply)



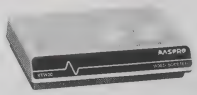
WB38TG
(Power Supply)



WB40TS
(Booster)

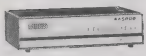
WB42TG
(Booster)

VTW28



VTW30

WB40TS
(Power Supply)



WB42TG
(Power Supply)

TB30

SPLITTERS for Home Use

MASPRO

By utilizing these equipment, the TV signals from the antenna are equally distributed to a number of TV sets.

VHF { E ch 2 12・FM / A ch 2 13・FM / C ch 1 12・FM } UHF { E ch 21 57 / A ch 14 63 / C ch 13 44 }

SPC SPLITTER

Outdoor Use・Plastic Housing・One Terminal Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω)		Splitting Loss (dB)		Isolation Out-to-Out (dB)		VSWR		Symbol	Dimensions H×W×D(mm)
		Input	Output	VHF	UHF	VHF	UHF	VHF	UHF		
2-way	2SPC	75・300(200)		3.5	4.5	20 35	20 30	1.05 1.3	1.1 1.5		89×114×54

D SPLITTER

Indoor Use・Simple Type

2-way	D3	300(200)	3.6	4.5	15 35	15 20	1.8 2.5	1.8 2.5		44・44・19

SPCA SPLITTERS

Outdoor Use・Plastic Housing・One Terminal Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω)		Splitting Loss (dB)			Isolation Out-to-Out (dB)			VSWR			Symbol	Dimensions H×W×D(mm)
		Input	Output	VHF	UHF	950～1335 MHz	VHF	UHF	950～1335 MHz	VHF	UHF	950～1335 MHz		
2-way	2SPCA	75		3.8	4.5	5.2	20～40		15～25	1.2～1.5	1.2～1.6	1.2～1.8		86× 92×46
3-way	3SPCA			6	7.5	8.8	20～35	18～35						93×114×54
4-way	4SPCA			7.5	8.7	9.7								89×114×54

D SPLITTER

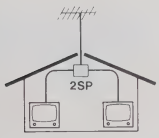
Indoor Use・Simple Type

Type	Model	Impedance (Ω)		Splitting Loss (dB)			Isolation Out-to-Out (dB)			VSWR			Symbol	Dimensions H×W×D(mm)
		Input	Output	VHF	UHF	1035～1335 MHz	VHF	UHF	1035～1335 MHz	VHF	UHF	1035～1335 MHz		
2-way	2D7	75		3.5	4	4.8	20～40	18～30	15～30	1.1～1.4	1.2～1.8	1.2～1.8		58× 57×24

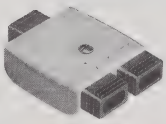
SP SPLITTERS

Indoor Use・One Terminal Power Passing (1 A at 30 V AC or 15 V DC)

2-way	2SP	75	3.5	4.5	5.2	20～40	18～35	15～35	1.1～1.4	1.2～1.6	1.2～1.8		80× 60×30
3-way	3SP		5.9	7.1	8.1								
4-way	4SP		7.2	8.3	9.5								80× 85×32

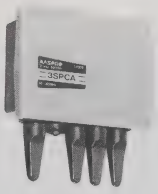


2SPC



D3

2SPCA



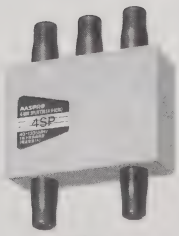
3SPCA

4SPCA

2D7

2SP

3SP



4SP

DIRECTIONAL COUPLERS for Home Use

MASPRO

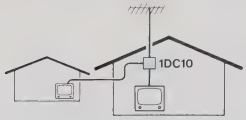
These equipment permit the connection of TV sets from the middle of a long lead-in cable.
The equipment picks up the TV signals on the way of the long lead-in cable from the antenna.

DC DIRECTIONAL COUPLERS

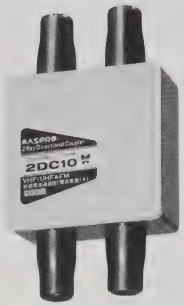
Indoor Use
Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

VHF { E ch 2 - 12・FM / A ch 2 13・FM / C ch 1 12・FM } UHF { E ch 21 - 57 / A ch 14 63 / C ch 13 44 }

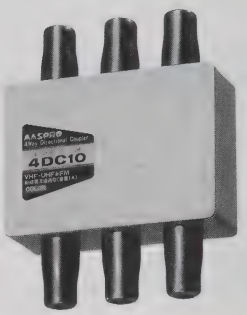
Type	Model	Impedance (Ω) Input	Output	BR (Tap)	Insertion Loss (dB) VHF	UHF	950 1335 MHz	Tap Value (dB) VHF	UHF	950 1335 MHz	Isolation Tap-to-Out (dB) VHF	UHF	950 1335 MHz	Isolation Tap-to-Tap (dB) VHF	UHF	950 1335 MHz	VSWR VHF	UHF	950 1335 MHz	Symbol	Dimensions H×W×D(mm)
1-way	1DC10	75			1.5	2	2.5									—					80× 60×30
2-way	2DC10				2.5	3	3.5	12	13	14	25 ~45	20 ~40	18 ~35	20 ~40	18 ~35	15 ~35	1.1 ~1.4	1.2 ~1.6	1.2 ~1.8		
4-way	4DC10				4	5	6														80× 85×32



1DC10



2DC10



4DC10

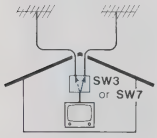
ANTENNA SELECTORS for Home Use

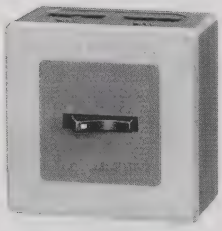
The selector switches over to either one of the TV signals from two different antennas.
Lower loss is obtained than using a mixer.

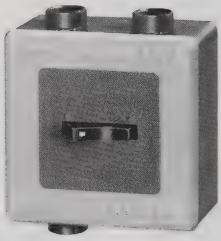
SW ANTENNA SELECTORS

Indoor Use

Model	Input Output Impedance (Ω)	Insertion Loss (dB)	Isolation (dB) VHF	UHF	Description	Symbol	Dimensions H×W×D(mm)
SW3	300(200)	0.8	30~50	20~40	Plug-in Type		57 × 57 × 34
" 7	75		40~60	20~35	—		67 × 57 × 34




SW3


SW7

MATCHING TRANSFORMERS for Home Use

MASPRO

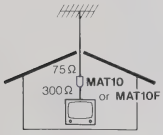
These equipment are used when connecting coaxial cable and twinlead.

MAT MATCHING TRANSFORMERS

Indoor Use **MAT10F : F-type Connector**

VHF { E ch 2 12·FM / A ch 2 13·FM / C ch 1 12·FM } UHF { E ch 21 57 / A ch 14 63 / C ch 13 44 }

Model	Impedance (Ω) Input	Impedance (Ω) Output	Insertion Loss (dB) VHF	Insertion Loss (dB) UHF	VSWR VHF	VSWR UHF	Description	Symbol	Dimensions H×W×D(mm)
MAT10	75(300)	300(75)	0.7	1.2	1.1 1.4	1.2 1.8		⊗	105 · 24 · 19
" 10F									ϕ12 × 103



MAT10

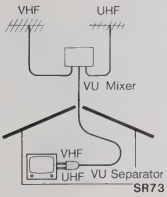
MAT10F

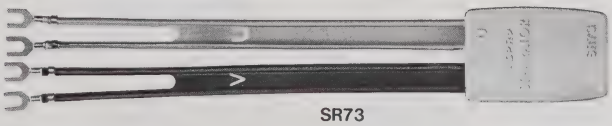
VHF·UHF SEPARATOR for Home Use

This is a splitting network used to separate TV signals into VHF and UHF wave respectively from one lead-in cable combined both waves. Connect it to the antenna terminals of the TV.

SR VU SEPARATOR

Model	Impedance (Ω) Input	Impedance (Ω) Output VHF	Impedance (Ω) Output UHF	Insertion Loss (dB) VHF	Insertion Loss (dB) UHF	Out-of-Band Rejection (dB)	VSWR VHF	VSWR UHF	Description	Symbol	Dimensions H×W×D(mm)
SR73	75·200 (300)	300		1~1.5	1.3~2.5	15~30	1.3~2.2	1.4~2.7	—	⊂⊃	45×31×20

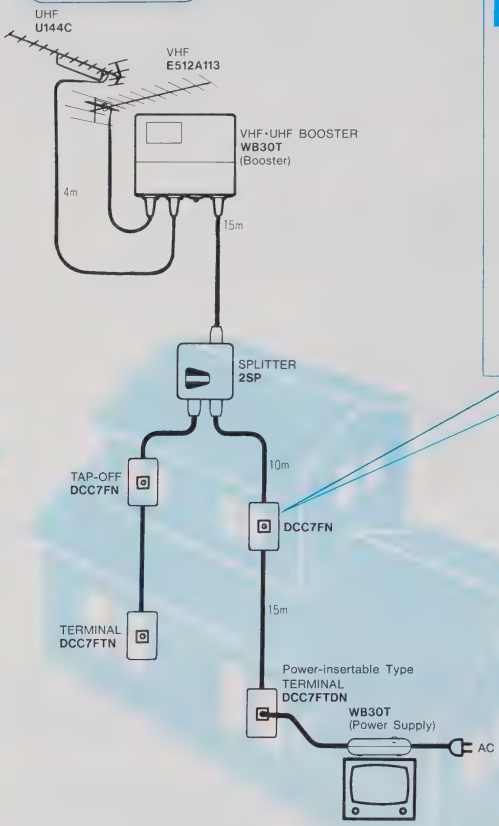




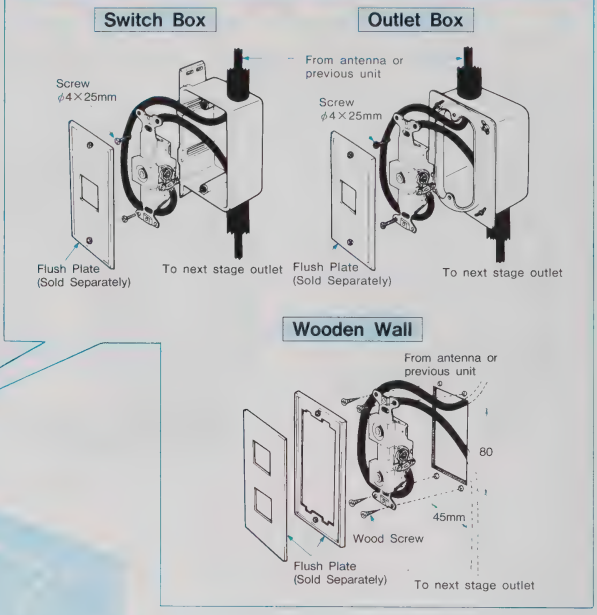
SR73

Examples of MATV Wirings For Distribution.

4 Terminals

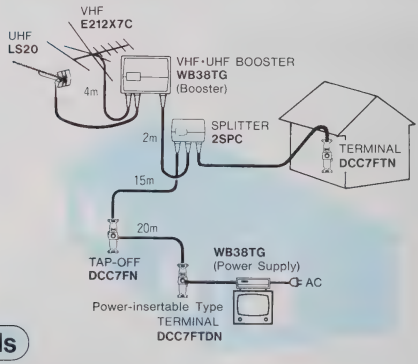


Housing Instructions of Wall Outlet (Tap-off or Terminal)



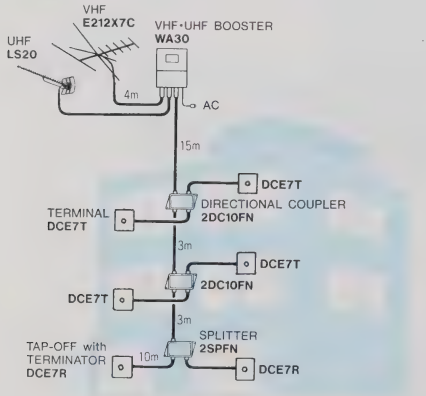
3 Terminals

Example of outdoor type splitter **(2SPC)** used to distribute signals to separate house.



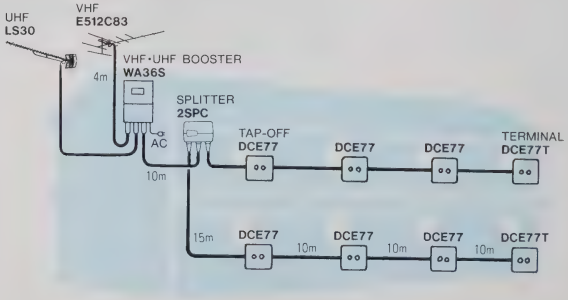
6 Terminals

Example of 6-terminal distribution within a single building.

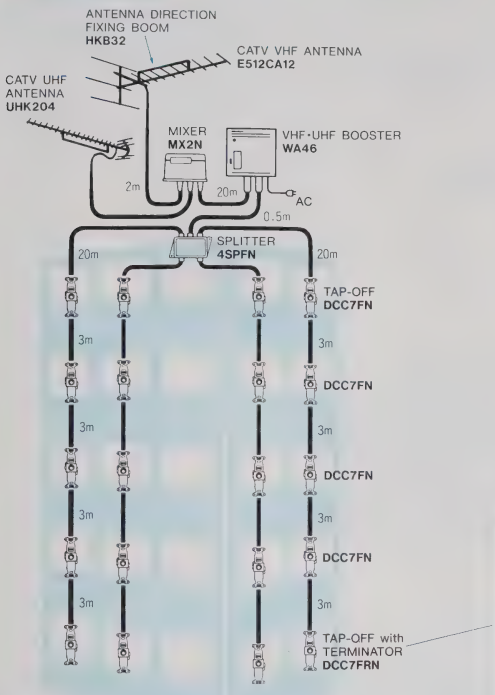


8 Terminals

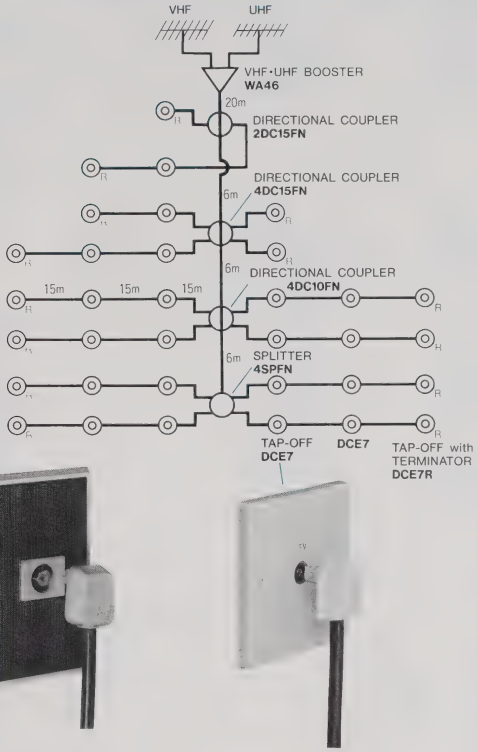
Example of outdoor splitter **(2SPC)** used for 8-terminal distribution within an apartment house.



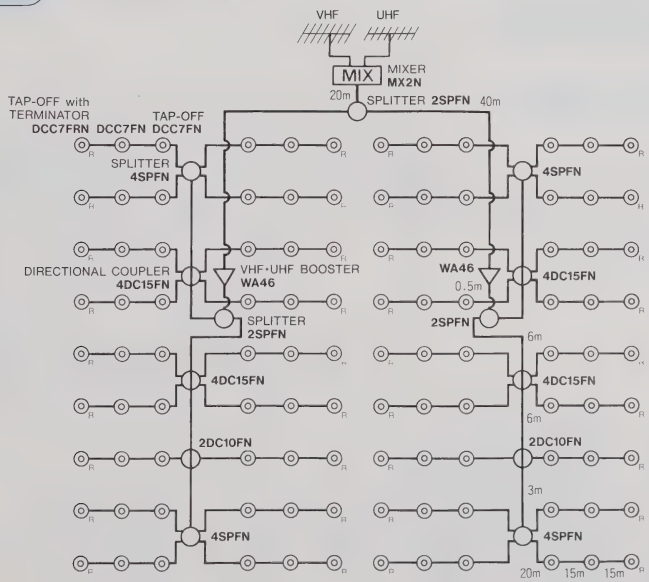
20 Terminals 5 Stories Building



34 Terminals 8 Stories Building



108 Terminals 9 Stories Building



CATV VHF ANTENNAS

MASPRO

E-CA・A-CA HEAVY-DUTY CATV VHF TENNAS

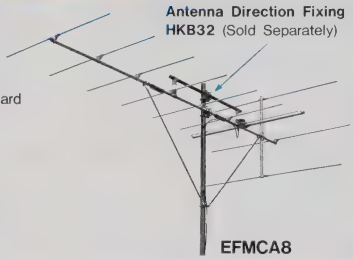
75Ω (F-type Connector)

Model names with affixation "**S**" have stainless steel elements, boom and boom supporter.

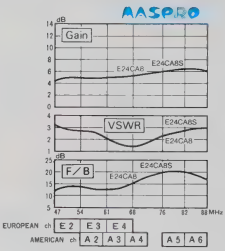
Model	
E24CA8	A26CA8
EFMCA8	AFMCA8
E512CA12	A713CA12

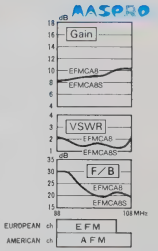
American Standard
Number of Elements
Type
Channel or Band
European Standard

Antenna Direction Fixing Boom
HKB32 (Sold Separately)



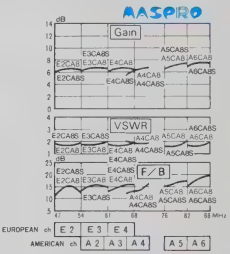
EFMCA8

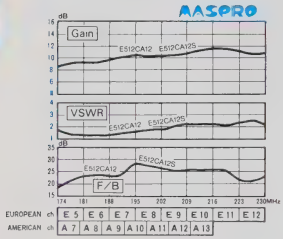




E2CA8	——
E3CA8	A2CA8
E4CA8	A3CA8
——	A4CA8
——	A5CA8
——	A6CA8
E5CA12	A7CA12
E6CA12	A8CA12
E7CA12	A9CA12
E8CA12	A10CA12
——	A11CA12
E9CA12	A12CA12
E10CA12	A13CA12
E11CA12	——
E12CA12	——

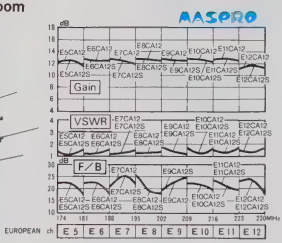
E9CA12

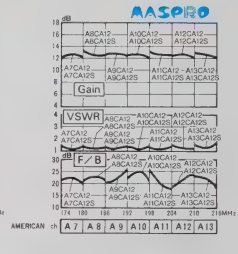




Antenna Direction Fixing Boom
HKB32 (Sold Separately)

E512CA12





CATV UHF ANTENNAS

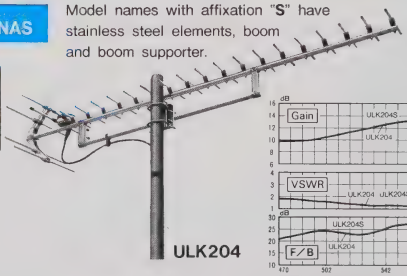
U-K HEAVY-DUTY CATV UHF TENNAS

75Ω (F-type Connector)

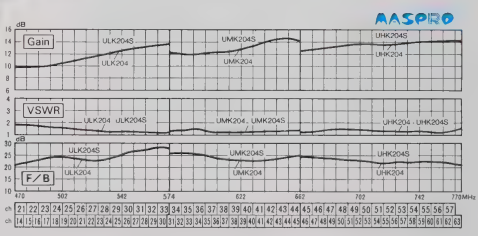
Model names with affixation "**S**" have stainless steel elements, boom and boom supporter.

Model	Reception Channels
ULK 204	Ech21～33, Ach14～31
UMK204	Ech34～44, Ach32～45
UHK 204	Ech45～57, Ach46～63

Number of Reflectors
Number of Elements
Type
Band



ULK204



Materials

Model	Element	Element Holder	Boom	Boom Supporter	Bolt, Hardware	Mast Mount
E24CA8 A26CA8 E2CA8－E4CA8 A2CA8－A6CA8	Corrosion-resistant Aluminum φ16×t1mm	Aluminum Die-casting	Corrosion-resistant Aluminum φ32×t2mm	Corrosion-resistant Aluminum φ16×t1mm	Stainless Steel or Steel (Zinc Hot-dipping Galvanization)	Steel (Zinc Hot-dipping Galvanization) Adaptable Mast φ32～60.5mm
EFMCA8 AFMCA8 E512CA12 A713CA12 E5CA12－E12CA12 A7CA12－A13CA12	Corrosion-resistant Aluminum φ12.7×t1mm	Stainless Steel				
ULK204, UMK204, UHK204	Corrosion-resistant Aluminum φ9.6×t0.8mm	Aluminum Die-casting	Corrosion-resistant Aluminum φ22.2×t1mm	Corrosion-resistant Aluminum φ22.2×t2mm		
E24CA8S A26CA8S E2CA8S－E4CA8S A2CA8S－A6CA8S	Stainless Steel φ16×t1mm	Aluminum Die-casting	Stainless Steel φ32×t1mm	Stainless Steel φ16×t1mm		
EFMCA8S AFMCA8S E512CA12S A713CA12S E5CA12S－E12CA12S A7CA12S－A13CA12S	Stainless Steel φ12.7×t0.8mm	Stainless Steel				
ULK204S, UMK204S, UHK204S	Stainless Steel φ9.5×t0.5mm	Aluminum Die-casting	Stainless Steel φ22×t1mm	Stainless Steel φ22×t1mm	● Stainless Steel ● Steel (Hot-dipping Galvanization) ● Aluminum Die-casting	

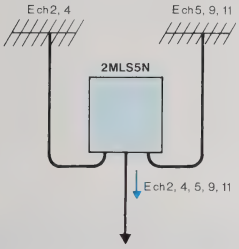
CATV LEVEL SETTERS

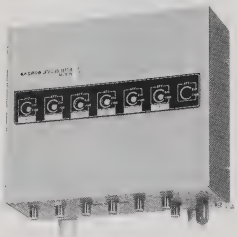
Equipment to set different levels of input signals to the same intensity. They can achieve level adjustment for each channel separately.

MLS LEVEL SETTERS

Indoor Use • F-type Connector • Power Passing to the Specified Channel (1 A at 30 V AC)

Number of TV Stations	Model	Impedance (Ω) Input	Impedance (Ω) Output	Level Control Channels	Insertion Loss (dB)	Response Flatness Within Band (dB)	Out-of-Band Rejection (dB)	Level Control Range (dB)	VSWR	Output Level Test Point (dB)	Symbol	Dimensions H×W×D(mm)
2	□MLS2N	75		Specify up to 7 alternate channels in the range of E ch2 to 12 or A ch2 to 13. But adjacent channel is not applicable.	Less than 8	Within 2	20～40 (fo ± 9 MHz)	Max. ⊖12 from insertion loss. (Variable, each channel)	1.2～2.5	⊖20	∅	184×198× 69
3	〃 3N											
4	〃 4N											
5	〃 5N											
6	〃 6N											
7	〃 7N											





6MLS6N

Specify level control channels when ordering.
FM channel can be made by special order.
UHF pass can be made by special order.

Suitable Waterproof Cover for Outdoor Use : BCM

□MLS□N
- Number of Level Control Channels
- Number of Input Terminals

Example
2MLS5N
- 5 Channels Reception (E ch2,4,5,9,11)
- 2 Input Terminals (E ch2～4 & ch5～12)

CATV ADJACENT CHANNEL MIXERS

The RMX2 and RMX3 are used to increase the number of channels when all alternate channels are occupied. RMX2VTR actuates to transmit the VCR signals at adjacent channels. A built-in filter protects the channel from interference due to VCR signals.

RMX VHF ADJACENT CHANNEL MIXERS

Indoor Use • F-type Connector
Power Passing to the Specified Channel (1 A at 30 V AC)

Description	Model	Examples of Mixing Channels	Impedance (Ω) Input	Impedance (Ω) Output	Insertion Loss (dB)	Sound Carrier Level Control Range (dB) (From Insertion Loss)	VSWR	Output Level Test Point (dB)	Symbol	Dimensions H×W×D(mm)
For additional 1 station	RMX2	Adding E ch6 to 5,7,9 and 11 which are being operated. Adding A ch8 to 7,9,11 and 13 which are being operated.	75		Less than 5	⊖5～⊖20	1.2～2	⊖20	M X	184×198× 69
For additional 2 stations	〃 3	Adding E ch3,8 to 2,4,5,7,9 and 11 which are being operated. Adding A ch3,9 to 2,4,6,8,10 and 12 which are being operated.			Less than 9				M X	

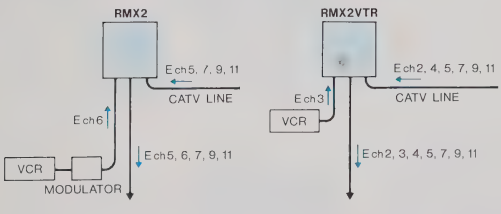
RMX VCR ADJACENT CHANNEL MIXER

Indoor Use • F-type Connector
Power Passing to the Specified Channel (1 A at 30 V AC)

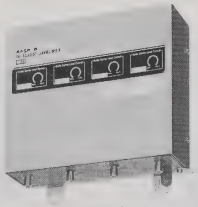
For additional 1 station	RMX2VTR	Adding E ch3 to 2,4,5,7,9 and 11 which are being operated. Adding A ch3 to 2,4,6,8,10 and 12 which are being operated.	75	E ch2～12, A ch2～13 Less than 5 Specified Channel Less than 8	⊖5～⊖20	1.2～2	⊖20	M X	184×198× 69

(Specify mixing channels when ordering)

Suitable Waterproof Cover for Outdoor Use : BCM



Pay attention, when undesired signals come on the CATV line, beat interference may be appeared on each desired TV channel.



RMX3

RMX2VTR

CATV MIXERS

Available in various kinds, such as the TV signals coming from several antennas and mixing their signals into one lead-in cable, and another one for increasing the reception gain by stacking the same antennas.

VHF Low Band { E ch 2～4 / A ch 2～6 / C ch 1～5 } VHF High Band { E ch 5～12 / A ch 7～13 / C ch 6～12 } UHF { E ch 21～57 / A ch 14～63 / C ch 13～44 }

MX MIXERS

Outdoor Use • F-type Connector
Power Passing to the Specified Channel (1 A at 30 V AC)

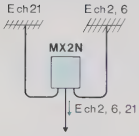
Model	Mixture of Receiving Channels (Impossible adjacent channel mixing)	Insertion Loss (dB)	Out-of-Band Rejection (dB)	VSWR	Symbol	Dimensions H×W×D(mm)
MX2N	•VHF Low Band + VHF High Band	0.5	20 40	1.1～2		148×125× 60
	•VHF + VHF	4	20～40 ※			
	•VHF + UHF	1	20 40			
	•UHF + UHF	4	15～40 ※			
MX2SN	Examples of Mixture					
	•VHF Single Channel + VHF Single Channel	3.5	20～40		MIX	
	•VHF Single Channel + VHF					
	•VHF Single Channel + UHF	VS 3.5 UHF1				
	•VHF Single Channel (Within Low Band) + VHF High Band	VS 3.5 VH 0.5				
	•VHF Single Channel (Within High Band) + VHF Low Band	VS 3.5 VL 0.5				
	•UHF Single Channel + UHF Single Channel	4	15 20			
	•UHF Single Channel + UHF 3 Alternate Channels					
MX3N	•VHF Low Band + (Ech5•6, Ach7•8, Cch6•7) + (Ech8～12, Ach10～13, Cch9～12)	3	15～40			
	•VHF Low Band + VHF High Band + UHF	1	20 40			
	•VHF + UHF + UHF	V1 UHF4.5				
	•VHF + VHF + UHF	VHF4 UHF1				
MX3SN	Examples of Mixture					
	•VHF Single Channel + VHF Single Channel + VHF Single Channel	3.5	20～40		MIX	
	•VHF Single Channel + VHF Single Channel + UHF	VS 3.5 UHF1				
	•VHF Single Channel + VHF Low Band + VHF High Band	3.5				
	•VHF Single Channel + VHF + UHF					
	•VHF Single Channel + VHF Single Channel + VHF					
	•VHF Single Channel + VHF + VHF					
	•UHF Single Channel + UHF Single Channel + UHF Single Channel	4.5	15 20			
	•UHF Single Channel + UHF Single Channel + VHF	VHF1.5 UHF4	15～40			
	•UHF (Ech21～41, Ach14～41, Cch13～28) + UHF (Ech45～57, Ach46～63, Cch32～44) + VHF	VHF1.5 UHF2.5	20～30			

UHF Single Channel : Ech21～51, Ach14～55, Cch13～38

VS : VHF Single Channel, VL : VHF Low Band, VH : VHF High Band, V : VHF
※ Isolation Tap-to-Tap

(Specify mixture of receiving channels when ordering)

FM : If FM band is required to be mixed, please specify its frequency range up to 7 MHz in FM band.



MX2N

MX2SN

MX3N

MX3SN

CATV UHF BANDPASS FILTERS

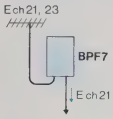
These filters are used to pass necessary signals and block unnecessary signals.

BPF UHF BANDPASS FILTERS

Outdoor Use • F-type Connector • Power Passing (1 A at 30 V AC or 15 V DC)

Model	Passband	Insertion Loss (dB)	Out-of-Band Rejection (dB)	Impedance (Ω) Input	Impedance (Ω) Output	VSWR	Symbol	Dimensions H×W×D(mm)
BPF7 (Single Channel Type)	Specify 1 UHF channel	4	25~40	75		Less than 2		311 × 106 × 106
BPF7 (Wide Band Type)	Specify 3 UHF channels	3	15~25					
	Specify 4 UHF channels		13~20					
	Specify 5 UHF channels							

(Specify necessary channels when ordering)



BPF7

CATV VHF ADJACENT CHANNEL TRAPS

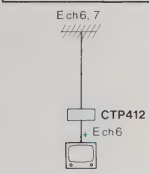
These are the traps used to remove the adjacent channel interference. The function is to reduce video signals on the adjacent channel.

CTP VHF ADJACENT CHANNEL TRAPS

Indoor Use • F-type Connector

Model	Impedance (Ω) Input	Impedance (Ω) Output	Rejection Channel Range	Insertion Loss (dB)	Rejection Frequency Range (MHz)	Rejection (dB)	Symbol	Dimensions H×W×D(mm)
CTP13	75		Ech2~4, Ach2~6	0.8	E: 47~68, A: 54~88	More than 50		58×130×103
〃 412			Ech5~12, Ach7~13	0.5	E:174~230, A:174~216			

E : European Channel, A : American Channel



CTP13

CTP412

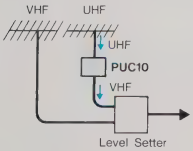
CATV CONVERTERS

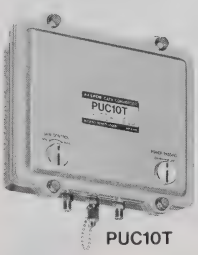
UHF signals have a greater loss in transmission compared with VHF signals. Therefore, when the transmission distance is very long, the UHF signals are converted into VHF signals once and then retransmitted.

PUC UHF SINGLE CHANNEL CONVERTERS

Outdoor Use • PLL Oscillation • F-type Connector

Model	Input Channel	Output Channel	Overall Conversion Gain (dB)	Noise Figure (dB)	Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
PUC10	Specify 1 channel in the range of Ech21 to 57 or Ach14 to 63.	Specify 1 channel in the range of Ech2 to 12 or Ach2 to 13.	8~12	4~8	Specify when ordering	4		175×190×58
〃 10T					20~30 AC (0.15 A)	2.5~4		





PUC10T

CATV HEAD AMPLIFIERS

MASPRO

These amplifiers are recommended for community antenna TV reception systems in large buildings or for outdoor CATV systems. The signal of each channel is amplified separately by its exclusive channel amplifier unit. The automatic gain control system perfectly keeps an output level fluctuation within ±1 dB even under seasonal input level changes of ±10 dB.

HA52G HEAD AMPLIFIERS

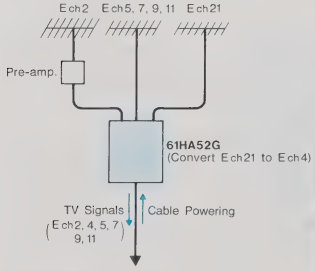
Indoor/Outdoor Use

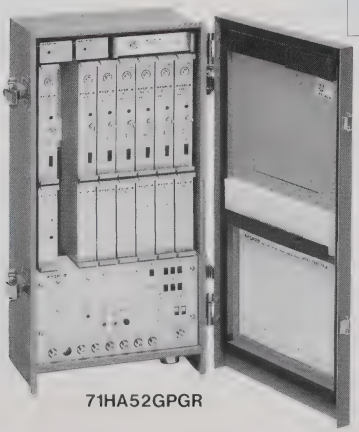
Items		HA52G Possible to build in pilot generator and UHF converter	HA52GPG With built-in pilot generator Possible to build in UHF converter	HA52GR (For Adjacent Channel Transmission) Possible to build in pilot generator and UHF converter	HA52GPGR (For Adjacent Channel Transmission) With built-in pilot generator Possible to build in UHF converter
Reception Channels	European ch	2～4・FM	5～12	2～4・FM	5～12
	American ch	2～6・FM	7～13	2～6・FM	7～13
	Chinese ch	1～5・FM	6～12	1～5・FM	6～12
Maximum Gain (Standard Gain)		46 dB (36 dB)	52 dB (42 dB)	42 dB (32 dB)	48 dB (38 dB)
Maximum Output Level		96 dBμ	102 dBμ	92 dBμ	98 dBμ
Output Level Control Range		⊖12 dB (Continuously Variable)			
Sound Carrier Level Control Range		—		⊖5～⊖20 dB	
Impedance		Input : 75 Ω (F-type connector), Output : 75 Ω (FT-type connector)			
AGC Regulation		Output deviation within ±1 dB at input 60 dBμ ±10 dB			
Noise Figure		4.5～8 dB			
VSWR		Input : 1.1～1.5 (Single channel), 1.1～2 (Combination channel), Output : 1.1～1.7			
Power Requirements		AC Line power voltage (Specify when ordering) or 20～30 V AC for cable powering.			
Power Consumption		20HA52G・GR : 5.6 W(6.4 VA)～80HA52G・GR : 16.4 W(22.8 VA), 20HA52GPG・GPGR : 6 W(7 VA)～80HA52GPG・GPGR : 16.8 W(23.4 VA) ※			
Dimensions／Weight		447(H)×253(W)×178(D) mm／Example 81HA52G : Approx. 13 kg			

※When incorporated the converter unit, power consumption will show an increase of 1.4 W 70 mA per unit.

Items	HA52G UV Converter Unit
Type of Local Oscillator	PLL (Phase Locked Loop)
Input Channel	Designated one channel at 470 MHz to 774 MHz UHF band
Output Channel	Designated one channel at 47 MHz to 230 MHz VHF band
Gain	8～12 dB
Output Level Control Range	12 dB maximum (Continuously Variable)
Passband Response	fo ±3.5 MHz within ±1 dB (E ch) fo ±3 MHz within ±1 dB (A ch)
Out-of-Band Rejection	fo ±9.5 MHz more than 30 dB (E ch) fo ±9 MHz more than 30 dB (A ch) (More than 50 dB when combined with HA52G)
Temperature Stability	within ±1.5 dB
Frequency Stability	within ±20 kHz
Maximum Output Level	80 dBμ
Noise Figure	4～8 dB
VSWR	Input : 1.1～1.5, Output : 1.1～2
Color Cross Modulation	Less than 30 dB at maximum Output (3-tone method)
Image Rejection	Less than 35 dB
Local Oscillator Leakage from Connector	Less than 40 dBμ

E : European Channel, A : American Channel, fo : Center Frequency of a Channel





71HA52GPGR

□□HA52GPGR
- For Adjacent Channel Transmission
- With Pilot Generator (Pilot Freq. : 148 MHz or 246 MHz)
- Number of Converters (Max. 8)
- Number of Reception Channels (Max. 8)

MASPRO

HA55G HIGH POWER HEAD AMPLIFIERS

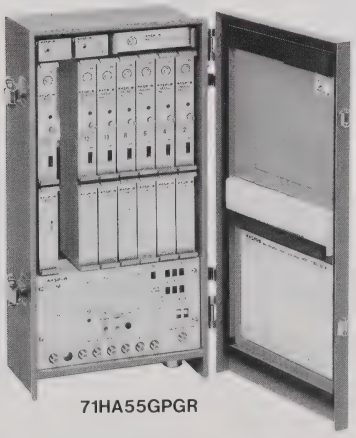
Indoor/Outdoor Use

Items		HA55G Possible to build in pilot generator and UHF converter	HA55GPG With built-in pilot generator Possible to build in UHF converter	HA55GR (For Adjacent Channel Transmission) Possible to build in pilot generator and UHF converter	HA55GPGR (For Adjacent Channel Transmission) With built-in pilot generator Possible to build in UHF converter
Reception Channels	European ch	2～4・FM	5～12	2～4・FM	5～12
	American ch	2～6・FM	7～13	2～6・FM	7～13
	Chinese ch	1～5・FM	6～12	1～5・FM	6～12
Maximum Gain (Standard Gain)		49 dB (39 dB)	55 dB (45 dB)	45 dB (35 dB)	51 dB (41 dB)
Maximum Output Level		114 dB〃	120 dB〃	110 dB〃	116 dB〃
Output Level Control Range		⊖10dB (Continuously Variable)			
Sound Carrier Level Control Range				⊖5～⊖20 dB	
Impedance		Input : 75 Ω (F-type connector), Output : 75 Ω (FT-type connector)			
AGC Regulation		Output deviation within ±1.5 dB at input 70 dB〃 ±10 dB			
Noise Figure		4.5～10 dB			
VSWR		Input, Output : 1.1～2			
Power Requirements		AC Line power voltage (Specify when ordering) or 20～30 V AC for cable powering.			
Power Consumption		20HA55G・GR : 8.3 W(10 VA)～80HA55G・GR : 28.9 W(37.2 VA), 20HA55GPG・GPGR : 9.5 W(11.4 VA)～80HA55GPG・GPGR : 30 W(38.4 VA)※			
Dimensions／Weight		447(H)×253(W)×178(D) mm／Example 81HA55G : Approx. 13 kg			

※When incorporated the converter unit, power consumption will show an increase of 1.4 W 70 mA per unit.

Items	HA55G UV Converter Unit
Type of Local Oscillator	PLL (Phase Locked Loop)
Input Channel	Designated one channel at 470 MHz to 774 MHz UHF band
Output Channel	Designated one channel at 47 MHz to 230 MHz VHF band
Gain	−2～2 dB
Passband Response	fo ±3.5 MHz within ±1 dB (E ch) fo ±3 MHz within ±1 dB (A ch)
Out-of-Band Rejection	fo ±9.5 MHz more than 30 dB (E ch) fo ±9 MHz more than 30 dB (A ch) (More than 50 dB when combined with HA55G)
Temperature Stability	within ±1.5 dB
Frequency Stability	within ±20 kHz
Maximum Output Level	85 dB〃
Noise Figure	5～10 dB
VSWR	Input／Output 1.1～2
Color Cross Modulation	Less than 30 dB at maximum Output (3-tone method)
Image Rejection	Less than 35 dB
Local Oscillator Leakage from Connector	Less than 40 dB〃

E : European Channel, A : American Channel, fo : Center Frequency of a Channel



71HA55GPGR

□□HA55GPGR
- For Adjacent Channel Transmission
- With Pilot Generator (Pilot Freq. : 148 MHz or 246 MHz)
- Number of Converters (Max. 4)
- Number of Reception Channels (Max. 8)

CATV PRE-AMPLIFIERS

Low noise amplifiers to boost level as needed for head amplifier when receiving signal strength is weak.

PA VHF PRE-AMPLIFIERS

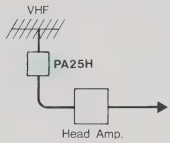
Outdoor Use · F-type Connector

Model	Reception Channels	Gain (dB)	Gain Control Range (dB)	Max. Output Level (dBμ)	Noise Figure (dB)	Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
PA25S	Specify 1 VHF channel	20~25	0~⊖10 (Continuously Variable)	90	1.5~3.5	20~30 AC	0.8~1.6 (2.2~3.3 VA)	⊳	148×125×60
" 25L	Ech 2~4, Ach 2~6			80			1 ~1.9 (2.8~4.2 VA)		
" 25H	Ech 5~12, Ach 7~13								

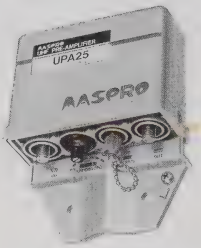
UPA UHF PRE-AMPLIFIER

Outdoor Use · F-type Connector

Model									
UPA25	Ech 21~57, Ach 14~63	20~25	0~⊖10 (Continuously Variable)	80	1.5~3.5	20~30 AC	0.9~1.9 (2.4~3.6 VA)	⊳	148×125×60



PA25H



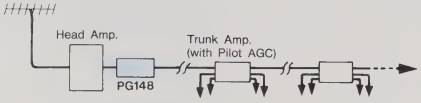
UPA25

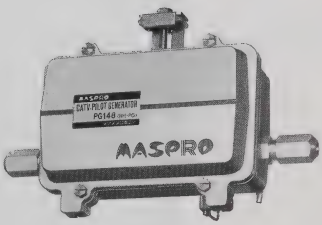
CATV PILOT GENERATOR

Equipment for generating standard signal to control trunk and trunk bridger amplifier pilot AGC (Automatic Gain Control) circuit.

PG VHF PILOT GENERATOR

Model	Oscillation Frequency (MHz)	Maximum Output Level (dBμ)		Output Level Control Range (dB)	Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
		Pilot Only	Trunk Line Mixing					
PG148	148	114	100	6, 10 Fixed Attenuator ⊖12 (Continuously Variable)	20~30 AC	1.6 (2~3 VA)	⊗	195×197×122





PG148

CATV AMPLIFIERS

MASPRO

High Performance Amplifiers Used for CATV System

CLA VHF TRUNK AMPLIFIER

Model	Description	Operating Gain (dB)	Gain Control Range (dB)	Operating Output Level (dBμ)	Tap Value of Branch Terminal (dB)	Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
CLA26S	—	23／230 MHz	±3／230 MHz	92／230 MHz	10	20～30 AC	4.3～6.8		169×211×103

SLA VHF TRUNK AMPLIFIERS

SLA26PGE	2 Outputs, with Pilot AGC ※	23／230 MHz	±3／230 MHz	92／230 MHz	10	20～30 AC	4.6～4.9 (7～8.4 VA)		199×308×129
〃 26N	—						3.7 (5.6～6.9 VA)		199×310×129
〃 26PGN	with Pilot AGC ※						5.7 (8.6～10.5 VA)		

※ Pilot Frequency : 148 MHz

SLA-A4 VHF TRUNK BRIDGER AMPLIFIERS

Model	Description	Trunk Operating Gain (dB) (Gain Control Range)	Bridger Operating Gain (dB) (Gain Control Range)	Operating Output Level (dBμ) Trunk	Operating Output Level (dBμ) Bridger	Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
SLA26A4N	—	23(±3)／230 MHz	33(±2)／230 MHz	92／230 MHz	102／230 MHz	20～30 AC	7 (10.6～12.6 VA)		199×326×129
〃 26A4PGN	with Pilot AGC ※						9.1 (13.6～15.9 VA)		

※ Pilot Frequency : 148 MHz

WLA VHF-UHF TRUNK BRIDGER AMPLIFIER

Model	Trunk Operating Gain (Gain Control Range) (dB) VHF	Trunk Operating Gain (Gain Control Range) (dB) UHF	Bridger Operating Gain (Gain Control Range) (dB) VHF	Bridger Operating Gain (Gain Control Range) (dB) UHF	Operating Output Level (dBμ) Trunk VHF	Operating Output Level (dBμ) Trunk UHF	Operating Output Level (dBμ) Bridger VHF	Operating Output Level (dBμ) Bridger UHF	Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
WLA18A4N	6.5(+2.5 / 4)	13(+5 / 7.5)	25(−10)	24.5(−10)	86.5 (XM −83 dB, IM2 −73.5 dB)	93 (XM −80 dB)	105 (XM −47 dB, IM2 −53.5 dB)	104.5 (XM −49 dB)	20～30 AC	19.5～20.2 (27.8～31.2 VA)		238×337×120

XM : Cross Modulation, IM_2 : 2nd Order Intermodulation

A VHF BRIDGER AMPLIFIER

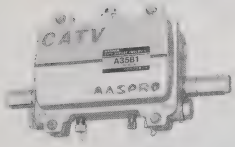
Model	Operating Gain (dB)	Slope Control Range (dB)	Output Level Control Range (dB)	Maximum Output Level (dBμ)	Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
A35B1	35～38	⊖4 dB／90 MHz (Fixed) 0～⊖4 dB／90 MHz (Continuously Variable)	0～⊖10 (Continuously Variable)	105 (XM ⊖46 dB, IM2 ⊖55 dB)	20～30 AC	2.6～4 (4.4～7.2 VA)		169×211×103

CLA26S

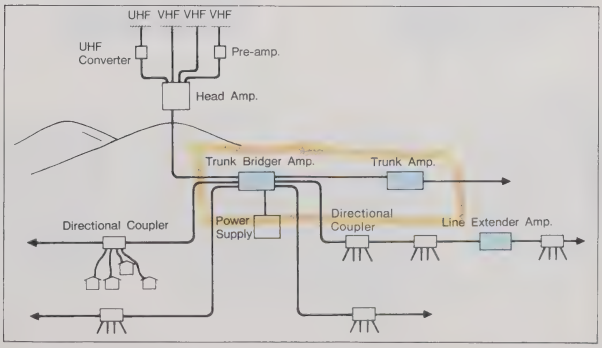
SLA26PGE

SLA26A4PGN

WLA18A4N



A35B1



CATV AMPLIFIERS

MASPRO

MCB VHF UNIVERSAL AMPLIFIER

Model	Description	Characteristics : Combined with MCB40			Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
		Operating Gain (dB)	Output Level Control Range (dB)	Maximum Output Level (dBμ)				
MCB40	—	—	—	—	20～30 AC	3.5～5.8 (6.4～9.6 VA)	▷	169×211×103
MCT2	Tilt Module	32/230 MHz	± 3	105/230 MHz				
MCS3	Block Tilt Module	L : 29～31 ※ H : 34～36 ※	Each 0～⊖10 (Continuously Variable)	L : 100 H : 105 ※				
MCF4	Block Flat Module	L : 34～36 ※ H : 34～36 ※		L : 105 H : 105 ※				

※L : Ech2～4・FM, Ach2～6・FM, H : Ech5～12, Ach7～13

CA VHF LINE EXTENDER AMPLIFIERS

Model	Gain (dB)		Gain Control Range (dB)	Maximum Output Level (dBμ)	Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
	Ech2～4 Ach2～6	Ech5～12 Ach7～13						
CA36	28 32	34～38	0～⊖10 (Continuously Variable)	105 Ech2～4 Ach2～6 : 105, Ech5～12 Ach7～13 : 110	Specify when ordering	3	▷	195×194×122
〃 36TS		33～38			20～30 AC	2.7～4.5 (5.6～8.4 VA)		

SA VHF HIGH POWER LINE EXTENDER AMPLIFIER

SA46N	39 43	44～48	0 ～10 (Continuously Variable)	Ech2～4 Ach2～6 : 120, Ech5～12 Ach7～13 : 117	20～30 AC	7.1～7.5	▷	169×211×103

UCA UHF HIGH POWER AMPLIFIER

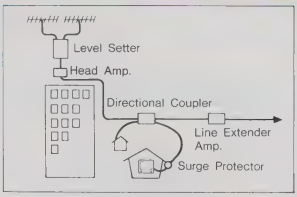
Model	Gain (dB)			Output Level Control Range (dB)	Maximum Output Level (dBμ)			Power Requirements (V)	Power Consumption (W)	Symbol	Dimensions H×W×D(mm)
	Ech2～4 Ach2～6	Ech5～12 Ach7～13	Ech21～57 Ach14～63		Ech2～4 Ach2～6	Ech5～12 Ach7～13	Ech21～57 Ach14～63				
UCA40N	⊖4～⊖1 ※	38～44		0～⊖10 (Continuously Variable)	—	—	120 (XM −46 dB, 2 ch's)	20～30 AC	7.2～7.5 (11.2～12.9 VA)	▷	169×255×103

※Insertion Loss　　XM : Cross Modulation

WCA VHF·UHF HIGH POWER AMPLIFIER

WCA40E	31～35	33～37	38～44	0 ～−10 (Continuously Variable)	110 XM −46 dB, IM_2 −55 dB	115 XM −46 dB, IM_2 −55 dB	118 (XM −46 dB)	20～30 AC	8.5　9.2 (13～15 VA)	▷	199×310×129

IM_2 : 2nd Order Intermodulation



MCB40

MCT2
Tilt Module

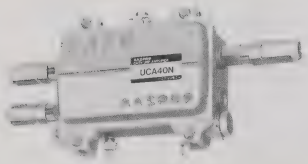
MCS3
Block Tilt Module

MCF4
Block Flat Module

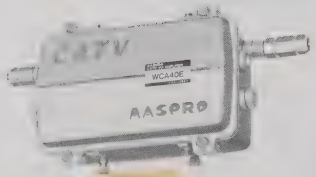
CA36

CA36TS

SA46N



UCA40N



WCA40E

CATV BOOSTERS

MASPRO

A VHF BOOSTERS

Indoor/Outdoor Use (A46 : Indoor Use) • Metal Housing • A46 : Built-in UHF Mixer • F-type Connector

Model	Gain (dB) Ech 2 ~ 4 Ach 2 ~ 6 Cch 1 ~ 5	Gain (dB) Ech 5 ~ 12 Ach 7 ~ 13 Cch 6 ~ 12	Max. Output Level (dBμ) Ech 2 ~ 4 Ach 2 ~ 6 Cch 1 ~ 5	Max. Output Level (dBμ) Ech 5 ~ 12 Ach 7 ~ 13 Cch 6 ~ 12	Noise Figure (dB)	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
A36T	28 ~ 33	33 ~ 38	108 (XM ⊖40 dB)	108 (XM ⊖40 dB)	4 ~ 7	20 ~ 30 AC (0.2A)	—	P.S. Sold Separately ※	▷	211×170×62
★ A36						Specify when ordering	5.6			

XM : Cross Modulation ※P.S. : Power Supply

Model	Gain (dB) Ech 2 4 Ach 2 6 Cch 1 5	Gain (dB) Ech 5 ~ 12 Ach 7 ~ 13 Cch 6 ~ 12	Gain (dB) Ech 21 ~ 57 Ach 14 ~ 63 Cch 13 ~ 44	Max. Output Level (dBμ) Ech 2 ~ 4 Ach 2 ~ 6 Cch 1 ~ 5	Max. Output Level (dBμ) Ech 5 ~ 12 Ach 7 ~ 13 Cch 6 ~ 12	Noise Figure (dB)	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
A46	38 43	43 ~ 48	Pass	117 (XM ⊖46 dB)	117 (XM ⊖46 dB)	4 ~ 8	Specify when ordering	9.3		▷	210×170×70

UA UHF BOOSTERS

Indoor/Outdoor Use (UA46 : Indoor Use) • Metal Housing • Built-in VHF Mixer • F-type Connector

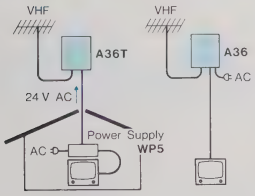
Model	Gain (dB) Ech 2 12 Ach 2 13 Cch 1 12	Gain (dB) Ech 21 ~ 57 Ach 14 ~ 63 Cch 13 ~ 44	Max. Output Level (dBμ)	Noise Figure (dB)	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
UA30T	Pass	30 ~ 35	103 (XM ⊖40 dB)	1.9 ~ 3	24 AC (0.1A)	—	P.S. Sold Separately ※	▷	211 · 170 · 62
〃 30					Specify when ordering	2.9			
〃 36TS		33 ~ 38	108 (XM ⊖40 dB)		20 ~ 30 AC (0.23A)	—	P.S. Sold Separately ※		
〃 36S					Specify when ordering	4.4	—		
〃 40		38 ~ 43	113 (XM ⊖46 dB)	2 ~ 5	Specify when ordering or 20 ~ 30 AC (0.3A)	— / 4.7	Dual power (Line power or remote power supply operation)		
〃 46		43 ~ 48	120 (XM ⊖46 dB)	4 ~ 8	Specify when ordering	9.4	—		210×170×70

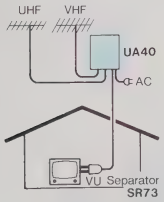
WA VHF·UHF BOOSTERS

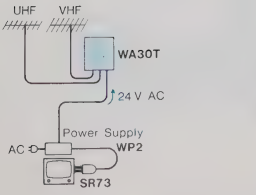
Indoor/Outdoor Use (WA46 : Indoor Use) • Metal Housing • F-type Connector

Model	Gain (dB) Ech 2 4 Ach 2 6 Cch 1 5	Gain (dB) Ech 5 ~ 12 Ach 7 ~ 13 Cch 6 ~ 12	Gain (dB) Ech 21 ~ 57 Ach 14 ~ 63 Cch 13 ~ 44	Max. Output Level (dBμ) Ech 2 ~ 4 Ach 2 ~ 6 Cch 1 ~ 5	Max. Output Level (dBμ) Ech 5 ~ 12 Ach 7 ~ 13 Cch 6 ~ 12	Max. Output Level (dBμ) Ech 21 ~ 57 Ach 14 ~ 63 Cch 13 ~ 44	Noise Figure (dB)	Power Requirements (V)	Power Consumption (W)	Description	Symbol	Dimensions H×W×D(mm)
WA30T	20 23	25 ~ 28	30 ~ 35	98	98	103	1.9 ~ 3	24 AC (0.17A)	—	P.S. Sold Separately ※	▷	211×170×62
★ 〃 30				(XM ⊖40 dB)				Specify when ordering	4.7			
★ 〃 36TS	28 ~ 32	33 ~ 37	33 ~ 38	103	103	108	Ech 2 12 Ach 2 13 : 1.7 3 Cch 1 12 Ech 21 57 Ach 14 63 : 1.9 3 Cch 13 44	20 ~ 30 AC (0.41A)	—	P.S. Sold Separately ※		
★ 〃 36S				(XM ⊖40 dB)				Specify when ordering	7.6			
★ 〃 40	30 ~ 34	35 ~ 39	38 ~ 43	111	111	113	2 ~ 5	Specify when ordering or 20 ~ 30 AC (0.5A)	7.6 —	Dual power (Line power or remote power supply operation)		
				(XM ⊖46 dB)								
★ 〃 46	38 ~ 43	43 ~ 48	43 ~ 48	117	117	120	4 ~ 8	Specify when ordering	16	—		210×170×70
				(XM ⊖46 dB)								

★Available FM Amplification on request.







CATV BOOSTER POWER SUPPLIES

MASPRO

Remote Power Supplies for Booster

WP BOOSTER POWER SUPPLIES

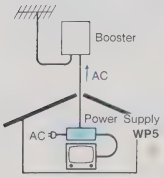
Outdoor Use • Metal Housing • F-type Connector

Model	Impedance (Ω) Input	Impedance (Ω) Output	Power Supply Voltage (V) Primary	Power Supply Voltage (V) Secondary	Current Capacity (A)	Suitable Boosters	Symbol	Dimensions H×W×D(mm)
WP2405f	75		Specify when ordering	24 AC	0.5	A36T, UA36TS, WA36TS, UA30T, WA30T	PS	168×110×111
〃 3015				30 AC	1.5	For Cascade Use UA40, WA40, A36T, UA36TS, WA36TS		

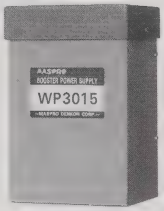
WP BOOSTER POWER SUPPLIES

Indoor Use • WP2 : Terminal Type, Plastic Housing
WP5 : F-type Connector, Metal Housing

WP2	75	75•200(300)	Specify when ordering	24 AC	0.2	UA30T, WA30T	PS	50×160×100
〃 5		75			0.5	UA40, WA40, A36T, UA36TS, WA36TS, For Cascade Use UA30T, WA30T		62×180×136

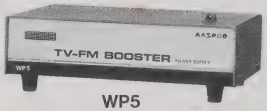


WP2405f



WP3015

WP2



WP5

CATV POWER SUPPLIES

These equipment supply 30 V AC power to CATV Amp., etc.

BPS POWER SUPPLY

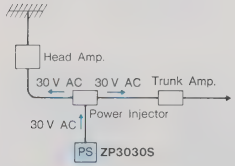
Outdoor Use • Secondary Output : F-type Connector

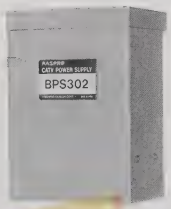
Model	Input Voltage (V)	Output Voltage (V)	Current Capacity (A)	Description	Symbol	Dimensions H×W×D(mm)
BPS302	Specify when ordering	30 AC	2 (Max.)	Built-in Lightning Arrester	PS	195×138×128

ZP LIGHTNING-PROOF POWER SUPPLY

Outdoor Use • Secondary Output : FT-type Connector with 3.5 m Cord

ZP3030S	Specify when ordering	30 AC	3 (Max.)	Built-in Surge Protected Power Transformer	PS	224×211×258





BPS302

ZP3030S

CATV SPLITTERS

MASPRO

Equipment for splitting TV signals from the CATV trunk line and branch line with the same intensity.

VHF: E ch 2 12·FM / A ch 2 13·FM / C ch 1 12·FM — UHF: E ch 21 57 / A ch 14 63 / C ch 13 44

SPLN SPLITTERS

Outdoor Use · F-type Connector · Power Passing (2 A at 30 V AC)

Type	Model	Impedance (Ω) Input	Impedance (Ω) Output	Splitting Loss (dB) VHF	Splitting Loss (dB) UHF	Isolation Out-to-Out (dB) VHF	Isolation Out-to-Out (dB) UHF	VSWR VHF	VSWR UHF	Symbol	Dimensions H×W×D(mm)
2-way	2SPLN	75		3.5	4	30 ~ 40	25 40	1.05 1.3	1.1 1.4		81 · 95 · 94
4-way	4SPLN			7	8						

BSP SPLITTERS

Outdoor Use · Input : FT-type Connector · Output : F-type Connector · Power Passing (2 A at 30 V AC)

Type	Model	Impedance (Ω)	Splitting Loss (dB) VHF	Splitting Loss (dB) UHF	Isolation Out-to-Out (dB) VHF	Isolation Out-to-Out (dB) UHF	VSWR VHF	VSWR UHF	Symbol	Dimensions H×W×D(mm)
2-way	2BSP	75	3.5	4.2	25 ~ 40	20 ~ 35	1.05 1.3	1.1 1.4		104×156×113
4-way	4BSP		7	8	30 ~ 40	25 ~ 35				

LSP SPLITTER

Outdoor Use · FT-type Connector · Power Passing (3 A at 30 V AC)

Type	Model	Impedance (Ω)	Splitting Loss (dB) VHF	Splitting Loss (dB) UHF	Isolation Out-to-Out (dB) VHF	Isolation Out-to-Out (dB) UHF	VSWR VHF	VSWR UHF	Symbol	Dimensions H×W×D(mm)
2-way	2LSP	75	3.5	4.2	25 40	20 ~ 35	1.05 ~ 1.3	1.1 1.4		94 · 156 · 113

SP-HC SPLITTER

Outdoor Use · Built-in Surge Protector · F-type Connector

Type	Model	Impedance (Ω) Input	Impedance (Ω) Output	Splitting Loss (dB) VHF	Splitting Loss (dB) UHF	Isolation Out-to-Out (dB) VHF	Isolation Out-to-Out (dB) UHF	Insulation Resistance (MΩ)	VSWR VHF	VSWR UHF	Symbol	Dimensions H×W×D(mm)
2-way	SP72HC	75		3.6	4.8	25 ~ 40	20 ~ 30	More than 1000※	1.1 1.4	1.1 1.5		80 · 93 · 72

※Input↔Output, Earth Terminal↔Output

SPFN SPLITTERS

Indoor Use · F-type Connector · One Terminal Power Passing (1 A at 30 V AC)

Type	Model	Impedance (Ω) Input	Impedance (Ω) Output	Splitting Loss (dB) 10 ~ 47 MHz	Splitting Loss (dB) VHF	Splitting Loss (dB) UHF	Splitting Loss (dB) 950 ~ 1450 MHz	Isolation Out-to-Out (dB) 10 ~ 47 MHz	Isolation Out-to-Out (dB) VHF	Isolation Out-to-Out (dB) UHF	Isolation Out-to-Out (dB) 950 ~ 1450 MHz	VSWR 10 ~ 47 MHz	VSWR VHF	VSWR UHF	VSWR 950 ~ 1450 MHz	Symbol	Dimensions H×W×D(mm)
2-way	2SPFN	75		4	3.8	4.3	4.8	20 ~ 35	25 ~ 40	20 ~ 40	20 ~ 35	1.2 ~ 1.8	1.1 1.4	1.1 1.5	1.2 1.7		63× 71× 26
3-way	3SPFN			6	5.8	7	8.3										
4-way	4SPFN			7	6.8	8	9.5										66 × 116 × 26
6-way	6SPFN			9.2	9	10	12.2										
8-way	8SPFN			10.5	10.3	12	13.8										66 · 118 · 26

SPLW SPLITTERS

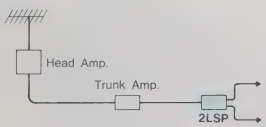
Outdoor Use · F-type Connector · One Terminal Power Passing (1 A at 60 V AC)

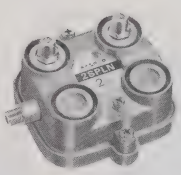
Type	Model	Impedance (Ω) Input	Impedance (Ω) Output	Splitting Loss (dB) 10 ~ 300 MHz	Splitting Loss (dB) 300 ~ 450 MHz	Isolation Out-to-Out (dB) 10 ~ 450 MHz	VSWR 10 ~ 450 MHz	Symbol	Dimensions H×W×D(mm)
2-way	2SPLW	75		3.7	4	25 ~ 45	1.1 ~ 1.5		81× 95× 94
4-way	4SPLW			7	7.5				

LSPWFT SPLITTER

Outdoor Use · FT-type Connector · Power Passing (1.5 A at 60 V AC)

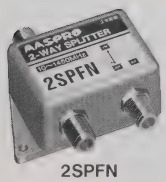
2-way	2LSPWFT	75	4	4.5	25 ~ 45	20 ~ 40	1.1 ~ 1.5	94 × 156 × 113




2SPLN

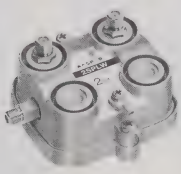
4BSP

SP72HC



2SPFN

4SPFN


2SPLW

2LSPWFT

CATV DIRECTIONAL COUPLERS

MASPRO

VHF(L) { E ch 2 4 / A ch 2 6 / C ch 1 5 } VHF(H) { E ch 5 12 / A ch 7 13 / C ch 6 12 } UHF(L) { E ch 21 33 / A ch 14 31 / C ch 13 24 } UHF(M) { E ch 34 44 / A ch 32 45 / C ch 25 31 } UHF(H) { E ch 45 57 / A ch 46 63 / C ch 32 44 }

DCL-N DIRECTIONAL COUPLERS

Outdoor Use • F-type Connector • Power Passing (2 A at 30 V AC)

Type	Model	Impedance (Ω) Input	Output	BR (Tap)	Insertion Loss (dB) VHF L	VHF H	UHF L	UHF M	UHF H	Tap Value (dB) VHF	Tap Value (dB) UHF	Isolation Tap-to-Out (dB) VHF	Isolation Tap-to-Out (dB) UHF	Isolation Tap-to-Tap (dB) VHF	Isolation Tap-to-Tap (dB) UHF	VSWR VHF	VSWR UHF	Symbol	Dimensions H×W×D(mm)
	1DCL10N				1	1	1.2	1.5		10	11								
1-way	〃 15N				0.7	0.8	1	1.2		15	16								
	〃 20N				0.5	0.5	1	1.2		20	21								
	2DCL10N				1.8	2	2.3	2.5		10	10								
2-way	〃 15N	75			1	1		1.5		15	15	30～40	25～35	25 40	25 40	1.05～1.3	1.1～1.4		81×108× 94
	〃 20N				0.5	1		1.3		20	20								
	4DCL10N				3.5	3.5		4		10	11			25 35	20～35				
4-way	〃 15N				1.2	1.5		2		15	16			25 40					
	〃 20N				0.8	1		1.2	1.4	20	20			25～35	25～40				

LDC DIRECTIONAL COUPLERS

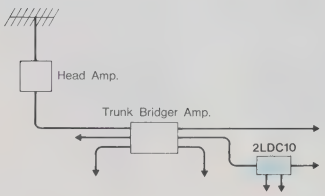
Outdoor Use • Trunk Line : FT-type Connector, Branch Line : F-type Connector
Power Passing : Trunk Line (3 A at 30 V AC), Branch Line (2 A at 30 V AC)

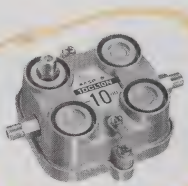
Type	Model	Impedance (Ω) Input	Output	BR (Tap)	Insertion Loss (dB) VHF L	VHF H	UHF L	UHF M	UHF H	Tap Value (dB) VHF L	VHF H	UHF L	UHF M	UHF H	Isolation Tap-to-Out (dB) VHF	Isolation Tap-to-Out (dB) UHF	Isolation Tap-to-Tap (dB) VHF	Isolation Tap-to-Tap (dB) UHF	VSWR VHF	VSWR UHF	Symbol	Dimensions H×W×D(mm)
	1LDC10				1		2			10		12										
1-way	〃 15				0.6	1.2	1.3	1.5		15		16			30～40							
	〃 20				0.4		1		1.1	19	20	20		19		25 35						
	2LDC10				2		2.8			10		11			30～45		25～30					
2-way	〃 15	75			1		1.5	1.8		15		15					30～40	20 30	1.05～1.3	1.1～1.4		104×156×113
	〃 20				0.6	1	1.3	1.5		19	20	21				20～30		25～35				
	4LDC10				3.5		4.5			10		11			30～40		25 40					
4-way	〃 15				1.5		2.2			15		16				25～35	30～40	25～30				
	〃 20				0.7		1.5	1.8		20		20					25～35	20～30				

LDC-FT DIRECTIONAL COUPLERS

Outdoor Use • FT-type Connector
Power Passing : Trunk Line, Branch Line (3 A at 30 V AC)

	Model	Impedance (Ω)	Insertion Loss (dB)	Tap Value (dB)	Isolation Tap-to-Out (dB)	Isolation Tap-to-Tap (dB)	VSWR	Symbol	Dimensions H×W×D(mm)
	1LDC10FT		1 1.5 1.8 2	10 11 12					
1-way	〃 15FT		0.6 1.2 1.5 1.8	15 15 16					
	〃 20FT		0.4 0.8 1 1.3	20 20 21					
	2LDC10FT		2 2 2.5 2.8	10 11 12					
2-way	〃 15FT	75	0.8 1.5 1.8	15 15 16	30～40 25～40		1.05～1.3 1.1～1.5		106×156×113
	〃 20FT		0.6 1.2 1.5 1.8	20 20 21		25～35 20～35			
	4LDC10FT		3.5 4.5 5	10 11					
4-way	〃 15FT		1.2 2 2.5	15 15 16					
	〃 20FT		0.8 1.5 1.8	20 20 21					




1DCL10N

2LDC10

4LDC15

1LDC10FT

4LDC10FT

CATV DIRECTIONAL COUPLERS

MASPRO

VHF(L) { E ch 2 4 / A ch 2 6 / C ch 1 5 } VHF(H) { E ch 5 12 / A ch 7 13 / C ch 6 12 } UHF(L) { E ch 21 33 / A ch 14 31 / C ch 13 24 } UHF(M) { E ch 34 44 / A ch 32 45 / C ch 25 31 } UHF(H) { E ch 45 57 / A ch 46 63 / C ch 32 44 }

DC-HC DIRECTIONAL COUPLERS

Outdoor Use • Built-in Surge Protector • F-type Connector

Type	Model	Impedance (Ω) Input	Output	BR (Tap)	Insertion Loss (dB) VHF L	VHF H	UHF L	UHF M	UHF H	Tap Value (dB) VHF L	VHF H	UHF L	UHF M	UHF H	Isolation Tap-to-Out (dB) VHF	Isolation Tap-to-Out (dB) UHF	Isolation Tap-to-Tap (dB) VHF	Isolation Tap-to-Tap (dB) UHF	Insulation Resistance (MΩ)	VSWR VHF	VSWR UHF	Symbol	Dimensions H × W × D (mm)
1-way	DC71HC	75			0.9	1	1.1	1.3		10		10	11		30～40	25～40	—	—	More than 1000※	1.1	1.1		80 × 93 × 72
2-way	〃 72HC				1.5		1.9	2.2	2.8	10		10					25～40	20～40		1.4	1.5		

※Input, Output ↔ BR, Earth Terminal ↔ BR

DC-FN DIRECTIONAL COUPLERS

Indoor Use • F-type Connector • Trunk Line Power Passing (1A at 30V AC)

Type	Model	Impedance (Ω) Input	Output	BR (Tap)	Insertion Loss (dB) 10 MHz	47 MHz	VHF	UHF	950 1450 MHz	Tap Value (dB) 10 MHz	47 MHz	VHF	UHF	950 1450 MHz	Isolation Tap-to-Out (dB) 10 MHz	47 MHz	VHF	UHF	950 1450 MHz	Isolation Tap-to-Tap (dB) 10 MHz	47 MHz	VHF	UHF	950 1450 MHz	VSWR 10 MHz	47 MHz	VHF	UHF	950 1450 MHz	Symbol	Dimensions H × W × D (mm)
1-way	1DC10FN	75			1.4		1.2	1.8	2.2	10			11		25～40	30～45	25～40	20～35		20～35	25～40	20～40	20～35		1.2～1.8	1.05～1.3	1.1～1.5	1.2～1.7			63 × 71 × 26
	〃 15FN				0.8		0.7	1.1	1.5	15			16																		
2-way	2DC10FN				2		1.8	2.2	2.8	10			11																		
	〃 15FN				1.3		1.1	1.4	2	15			16																		
4-way	4DC10FN				3.5		3.3	4.3	5.5	10			11	12																	
	〃 15FN				1.4		1.2	1.8	2.8	15			16																		66×116×26
	〃 20FN				1.2		1.1	1.5	1.8	20			21	22																	

DCL-W DIRECTIONAL COUPLERS

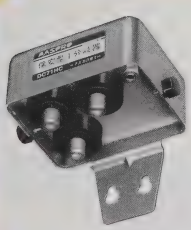
Outdoor Use • F-type Connector • Trunk Line Power Passing (1A at 60V AC)

Type	Model	Impedance (Ω) Input	Output	BR (Tap)	Insertion Loss (dB) 10～300 MHz	300～450 MHz	Tap Value (dB) 10～450 MHz	Isolation Tap-to-Out (dB) 10～300 MHz	300～450 MHz	Isolation Tap-to-Tap (dB) 10～300MHz	300～450 MHz	VSWR 10～450 MHz	Symbol	Dimensions H×W×D (mm)
1-way	1DCL10W	75			1.3	1.5	10	30～50	25～45	25～45	25～45	1.05～1.5		81×108×94
	〃 15W				0.8	1	15							
	〃 20W				0.6	0.8	20							
2-way	2DCL10W				2.2	2.5	10							
	〃 15W				1	1.3	15							
	〃 20W				0.8	1	20							
4-way	4DCL10W				4	4	10							
	〃 15W				1.8	2	15							
	〃 20W				1	1.3	20							

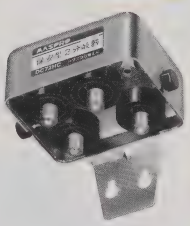
DCL-WT DIRECTIONAL COUPLERS

Outdoor Use • Trunk Line : FT-type Connector, Branch Line : F-type Connector
Trunk Line Power Passing (1A at 60V AC)

	Model	Impedance (Ω)			Insertion Loss (dB)		Tap Value (dB)	Isolation Tap-to-Out (dB)		Isolation Tap-to-Tap (dB)		VSWR	Symbol	Dimensions H×W×D (mm)
		Input	Output	BR (Tap)	10～300 MHz	300～450 MHz	10～450 MHz	10～300 MHz	300～450 MHz	10～300MHz	300～450 MHz	10～450 MHz		
1-way	1DCL10WT	75			1.5	1.8	10	25～45	25～45	25～45	20～40	1.05～1.5		81×123×94
	〃 15WT				1	1.3	15							
	〃 20WT				0.8	1	20							
2-way	2DCL10WT				2.2	2.5	10							
	〃 15WT				1.2	1.5	15							
	〃 20WT				1	1.3	20							
4-way	4DCL10WT				4	4	10							
	〃 15WT				1.8	2	15							
	〃 20WT				1	1.3	20							

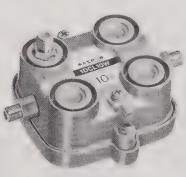


DC71HC

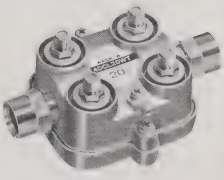


DC72HC

2DC10FN



1DCL10W



4DCL20WT

CATV SURGE PROTECTOR

MASPRO

This equipment protects the TV from abnormal voltage induced on the CATV line, and prevents the flowing-in abnormal current flowing into the trunk line or branch line caused by TV set trouble.

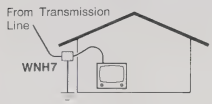
VHF(L) { E ch 2 4 / A ch 2 6 / C ch 1 5 } VHF(H) { E ch 5 12 / A ch 7 13 / C ch 6 12 } UHF(L) { E ch 21 33 / A ch 14 31 / C ch 13 24 } UHF(M) { E ch 34 44 / A ch 32 45 / C ch 25 31 } UHF(H) { E ch 45 57 / A ch 46 63 / C ch 32 44 }

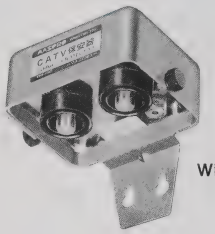
WNH SURGE PROTECTOR

Outdoor Use • F-type Connector

Model	Frequency (MHz)	Impedance (Ω)		Insertion Loss (dB)				Insulation Resistance (MΩ)	Dielectric Strength (V)	VSWR	Symbol	Dimensions H×W×D(mm)
		Input	Output	VHF		UHF						
				L	H	L	M H					
WNH7	47 ~ 770	75		0.2	0.3	0.5	0.9 1	More than 1000※	1000 AC (1 minute)	V : 1.1 ~ 1.5 U : 1.2 ~ 1.6		80 × 93 × 72

※Input ↔ Output, Earth Terminal ↔ Output





WNH7

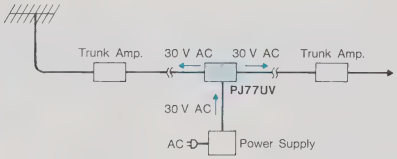
CATV POWER INJECTOR

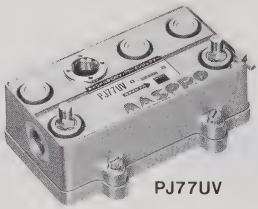
This equipment is used when inserting the necessary power from any desired place on the CATV line to the trunk line amplifier.

PJ POWER INJECTOR

Outdoor Use • FT-type or F-type Connector

Model	Impedance (Ω)		Current Capacity (A)		Power Supply Voltage (V)	Insertion Loss (dB)					VSWR		Symbol	Dimensions H×W×D(mm)
	Input	Output	FT-type Connector	F-type Connector		VHF		UHF			VHF	UHF		
						L	H	L	M	H				
PJ77UV	75		3	2	Max. 30 AC	0.2	0.6		0.7		1.03 ~ 1.2	1.05 ~ 1.3		104×156×113





PJ77UV

CATV WALL OUTLETS SURFACE TYPE

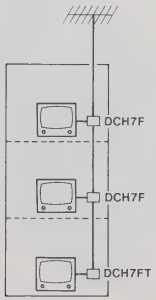
Ideally suited for a home master antenna system.

DCH WALL OUTLETS SURFACE TYPE

Indoor Use • Tap-off : Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω)			Number of TV Outlets	Insertion Loss (dB)		Tap Value (dB)		Isolation Tap-to-Out (dB)		VSWR		Symbol	Dimensions H×W×D(mm)
		Input	Output	TV		VHF	UHF	VHF	UHF	VHF	UHF	VHF	UHF		
Tap-off	DCH7F	75	75	75	1	1.2	2.2	8	9	25 ~ 45	20 ~ 40	1.1	1.4	1.2 ~ 1.6	52 × 49 × 25
★ Terminal	〃 7FT					0.5	1								

★Power-insertable Type (1 A at 30 V AC or 15 V DC)



DCH7F

DCH7FT

CATV WALL OUTLETS

MASPRO

DCE WALL OUTLETS

European Type

VHF(L) { E ch 2 4 / A ch 2 6 / C ch 1 5 } VHF(H) { E ch 5 12 / A ch 7 13 / C ch 6 12 } UHF(L) { E ch 21 33 / A ch 14 31 / C ch 13 24 } UHF(M) { E ch 34 44 / A ch 32 45 / C ch 25 31 } UHF(H) { E ch 45 57 / A ch 46 63 / C ch 32 44 }

Type	Model	Impedance (Ω) Input	Output	TV	Number of TV Outlets	Insertion Loss (dB) VHF L	VHF H	UHF L	UHF M	UHF H	Tap Value (dB) VHF L	VHF H	UHF L	UHF M	UHF H	Isolation Tap-to-Out (dB) VHF	Isolation Tap-to-Out (dB) UHF	Isolation Tap-to-Tap (dB) VHF	Isolation Tap-to-Tap (dB) UHF	VSWR VHF	VSWR UHF	Symbol	Dimensions H×W×D(mm)
Tap-off	DCE7	75	75	75	1	0.8	2	3.5	5		11		11	12		30～50	18～25				1.3	2		86×86×23
Tap-off with Terminator	〃 7R										9		10										
Terminal	〃 7T					0.2	2.5	6	7		—										1.3	2.5	
Tap-off	〃 77		75		2	1.2	2	2.5	4		12	13		15		30～50	18～25	25～30	25～30	1.1	1.3		
Tap-off with Terminator	〃 77R					—		—			11		13	18				25～40	25～40		1.3	2		
Terminal	〃 77T					3.7※		5※		6.5※	—		—										

※Splitting Loss

DCC-N WALL OUTLETS

American Type
Tap-off : Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω) IN	OUT	TV	Number of TV Outlets	Insertion Loss (dB) 10～47 MHz	VHF	UHF	950～1450 MHz	Tap Value (dB) 10～47 MHz	VHF	UHF	950～1450 MHz	Isolation Tap-to-Out (dB) 10～47 MHz	VHF	UHF	950～1450 MHz	Isolation Tap-to-Tap (dB) 10～47 MHz	VHF	UHF	950～1450 MHz	VSWR 10～47 MHz	VHF	UHF	950～1450 MHz	Symbol	Dimensions H×W×D(mm)
Tap-off	DCC7N	75	75	—	1	1.3	1.1	1.4	2.4	11	11	12	13	25～40	30～45	25～40	20～35	—	—	—	—	1.2～1.8	1.1～1.4	1.1～1.5	1.2～1.8		112×36×43
Tap-off with Terminator	〃 7RN		—			—	—	—	—	8.5	8.5	9	10	—	—	—	—									
Terminal	〃 7TN		—			0.2	0.2	0.3	0.8	—	—	—	—													

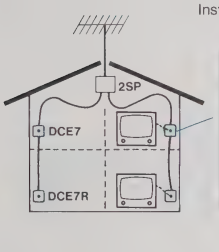
DCC-FN··-FDN WALL OUTLETS

American Type · TV Terminal : F-type Connector
Tap-off : Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

	Type	Model	Impedance (Ω) IN	OUT	TV	Number of TV Outlets	Insertion Loss (dB) 10～47 MHz	VHF	UHF	950～1450 MHz	Tap Value (dB) 10～47 MHz	VHF	UHF	950～1450 MHz	Isolation Tap-to-Out (dB) 10～47 MHz	VHF	UHF	950～1450 MHz	Isolation Tap-to-Tap (dB) 10～47 MHz	VHF	UHF	950～1450 MHz	VSWR 10～47 MHz	VHF	UHF	950～1450 MHz	Symbol	Dimensions H×W×D(mm)
	Tap-off	DCC7FN		75		1	1.3	1	1.4	2.3	11	11	12	13	25～40	30～45	25～40	20～35										
	Tap-off with Terminator	〃 7FRN									10	10	11	12					—	—	—							
	Terminal	〃 7FTN					0.2	0.2	0.3	0.5																		
	Tap-off	〃 77FN	75	75	75	2	1.4	1.1	1.5	2.5	13	13	14	14	25～40	30～45	25～40	20～35	20～35	25～40	20～40	20～35	1.2～1.8	1.1～1.4	1.1～1.5	1.2～1.8		112×36×30
	Tap-off with Terminator	〃 77FRN									10	10	11	12														
	Terminal	〃 77FTN					3.5※	3.5※	4※	5.5※	—	—	—	—														
★	Tap-off	〃 7FDN		75		1	1.4	1.2	1.4	2.3	11	11	12	13	25～40	30～45	25～40	20～35										
★	Terminal	〃 7FTDN		—			0.2	0.2	0.3	0.6																		

★Power-insertable Type (1 A at 30 V AC or 15 V DC) IN : Input, OUT : Output ※Splitting Loss

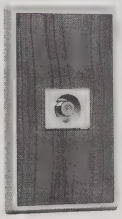
Installation on a Wall



DCE7

DCE77

DCC7N



DCC7FN

Flush Plate (1 Terminal)
Model **WN7201M**
(Sold Separately)

Flush Plate (2 Terminals)
Model **WN7202M**
(Sold Separately)

DCC77FN

DCC7FDN

ANTENNA PLUGS

TP·AP ANTENNA PLUGS

Model	Impedance (Ω) Input	Output	Description	Dimensions H×W×D(mm)
TP5	75 (F-type)	75	For Wall Outlet (Except DCE Outlet)	34×25×25
AP7	75 (J-type)			33×20×26

TP5

AP7

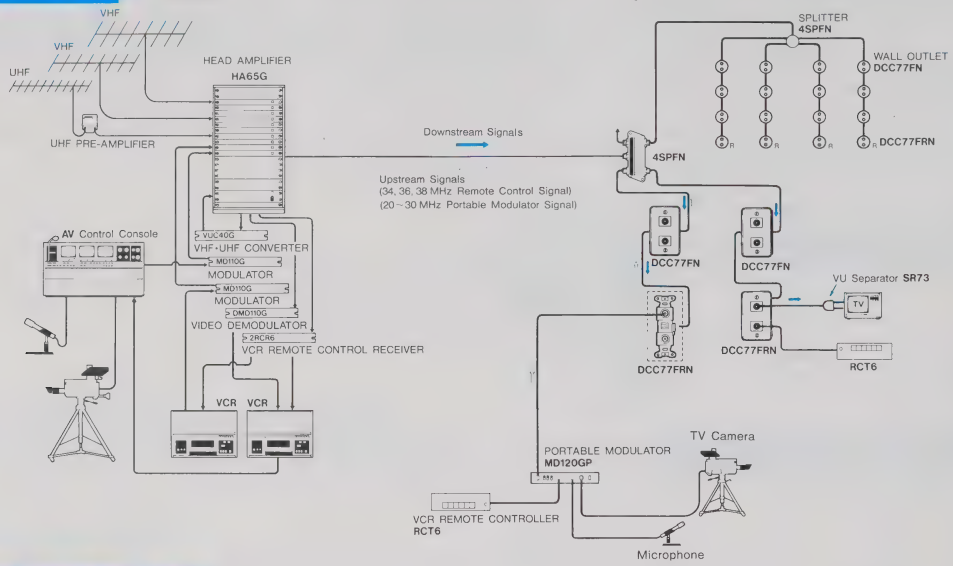
TWO-WAY SYSTEM CATV EQUIPMENT

MASPRO

This system is most suitable for schools and hotels.

Example

- VCR provided in the studio can be freely controlled by VCR remote controller RCT6.
- Portable modulator (MD120GP) enables simultaneous relay to all rooms.



HA HEAD AMPLIFIERS

Low { E ch2 4 / A ch2 6 } High { E ch5 ~ 12 / A ch7 ~ 13 }

Items	HA65G		HA40E (Simple and Economy Type)	
Reception Channels	Specified up to 8 alternate channels in the range of E ch2 to 12•FM or A ch2 to 13•FM.	Specified up to 4 alternate channels in the range of E ch21 to 57 or A ch14 to 63.	Specified up to 7 alternate channels in the range of E ch2 to 12 or A ch2 to 13.	Specified up to 7 alternate channels in the range of E ch21 to 57 or A ch14 to 63.
Maximum Gain (Standard Gain)	65 dB (50 dB)	60 dB (50 dB)	Low : 30 dB High : 35 dB	40 dB
Maximum Output Level	120 dBμ (8 channels)	120 dBμ (2 channels)	105 dBμ (7 channels)	110 dBμ (7 channels)
Output Level Control Attenuator	6 dB, 10 dB, 16 dB (Selectable)			
Impedance	Input Output : 75 Ω (F-type Connector)			
AGC Regulation	within ± 1.5 dB (Input 70 dBμ ± 15 dB)	within ± 1.5 dB (Input 70 dBμ ± 10 dB)		
Noise Figure	Less than 10 dB		12 ~ 16 dB	10 ~ 14 dB
VSWR	Input Output : Less than 1.8		Input Output : Less than 2.5	
Power Requirements	Specify when ordering			
Power Consumption	65 W (800HA65G)		35 W(Rated)(Modulator : 3 channels, UV Converter : 1 channel, VHF : 6 channels)	
Dimensions (Weight)	Base 1 820(H) × 520(W) × 400(D)mm(40 kg) / Base 2 1120(H) × 520(W) × 400(D)mm(50 kg) Possible to mount on BTS standard rack.		520(H) × 520(W) × 424(D)mm(17.5 kg) Possible to mount on BTS standard rack.	

- Head Amplifier HA65G
  VHF•FM Amplifier Unit ·····HA65GVA
  UHF Amplifier Unit ·····HA65GUA
  UV Converter Unit·····HA65GUC
  Base 1 ·····BAS 1
  Base 2·····BAS 2

※BAS 1 consists of following units ;
Small Size Rack 820(H) × 520(W) × 400(D) mm, Input Distribution, Output Mixing and Power Supply Units.

- HA65GVA, HA65GUA, HA65GUC, MD110G, VUC40G, VVC40G, DMD110G and RCR6 units are installable up to 8 units or 9 units (by removing name indication panel on the top row).

※BAS 2 consists of following units ;
Large Size Rack 1120(H) × 520(W) × 400(D) mm, Input Distribution, Output Mixing and Power Supply Units.

- HA65GVA, HA65GUA, HA65GUC, MD110G, VUC40G, VVC40G, DMD110G and RCR6 units are installable up to 14 units or 15 units (by removing name indication panel on the top row).

- Head Amplifier HA40E
  HA40E Base
  Specified VHF channel
  Specified UV converter
  Specified UV wide band converter

※HA40E base consists of following units ;
Rack 520(H) × 520(W) × 400(D) mm, VU Wide Band Amplifier and Power Supply Units.

- UHF transmission channels are up to 7 channels.
- MD110G, VVC40G, VUC40G, DMD110G and RCR6 units are installable up to 4 units or 5 units (by removing name indication panel on the top row).

611HA65G

61HA40E

□□□HA65G
- Number of UV Converter Units
- Number of UHF Amplifier Units
- Number of VHF•FM Amplifier Units

□□HA40E
- Number of UV Converter Units
- Number of VHF Receiving Channels

MASPRO

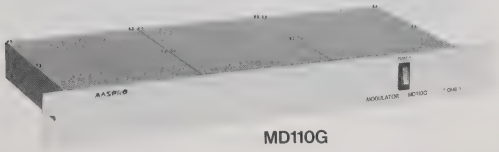
MD-G MODULATORS

These equipment are used to convert the audio and video signals from the TV camera or VCR (VTR) into one designated VHF or UHF signal.

MD110G

Differential Gain (DG) Differential Phase (DP)	Less than DG5 %・DP5°
Output Channel	Specify 1 channel within VHF・UHF channels
Maximum Output Level	110 dBμ (at no modulation) (fA fv－15 dB)
Power Requirements	20～30 V DC 280 mA (VHF), 370 mA (UHF)
Power Consumption	5.6～8.4 W (VHF), 7.4～11.1 W (UHF)
Dimensions (Weight)	49(H)×480(W)×223(D)mm (2.4 kg) (Possible to mount on BTS standard rack.)

fv : Video carrier freq. fA : Audio carrier freq.



MD110G

MD110GS

Differential Gain (DG) Differential Phase (DP)	Less than DG5 %・DP5°
Output Channel	Specify 1 channel within VHF・UHF channels
Maximum Output Level	110 dBμ (at no modulation) (fA＝fv－15 dB)
Power Requirements	Specify AC voltage when ordering
Power Consumption	9 W (VHF), 11 W (UHF)
Dimensions (Weight)	49(H)×480(W)×223(D)mm (2.6 kg) (Possible to mount on BTS standard rack.)

MD110GS

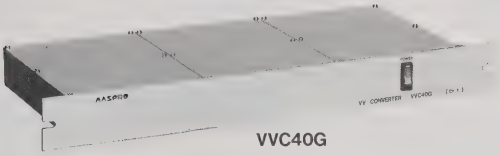
VVC VHF・VHF CONVERTER

VUC VHF・UHF CONVERTER

These equipment convert the upstream high frequency signal (20～30 MHz) from the TV side to the head amplifier side using a portable modulator (MD120GP) directly into the frequency of a designated VHF or UHF channel without using a video demodulator or AV control console.

VVC40G

Input Frequency	Between 20～30 MHz
Output Channel	Specify 1 channel (Within Ech2 to 12 or Ach2 to 13)
Maximum Gain	55 dB (Standard Gain : 40 dB)
AGC Regulation	Input 70 dBμ $^{+10\,dB}_{-15\,dB}$ (Output Variation: Within ± 1.5 dB)
Maximum Output Level	110 dBμ
Power Requirements	20～30 V DC 220 mA
Power Consumption	6.6 W
Dimensions (Weight)	49(H)×480(W)×223(D)mm (2.4 kg) (Possible to mount on BTS standard rack.)



VVC40G

VUC40G

Input Frequency	Between 20～30 MHz
Output Channel	Specify 1 channel (Within Ech23, 25, 27, Ach17, 19, 21)
Maximum Gain	50 dB (Standard Gain : 40 dB)
AGC Regulation	Input 70 dBμ ± 10 dB (Output Variation: Within ± 1.5 dB)
Maximum Output Level	110 dBμ
Power Requirements	20～30 V DC 380 mA
Power Consumption	11.4 W
Dimensions (Weight)	49(H)×480(W)×223(D)mm (2.5 kg) (Possible to mount on BTS standard rack.)

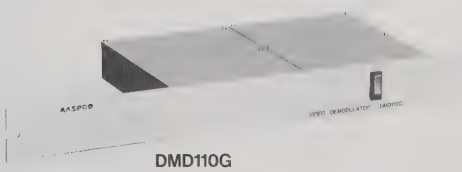
VUC40G

DMD VIDEO DEMODULATOR

The upstream high frequency signal (20～30 MHz) from the TV side to the head amplifier side is demodulated by this equipment to video signal and audio signal to enable recording on a VCR and mixing with other signals by an AV control console.

DMD110G

Video Signal	NTSC
Reception Frequency	Between 20～30 MHz
Normal Operating Input Level	60～80 dBμ
Output Level (Video)	1Vp-p (Synchronism Negative Polarity)
Differential Gain (DG) Differential Phase (DP)	Less than DG5 %・DP5°
Power Requirements	20～30 V DC 400 mA
Power Consumption	12 W
Dimensions (Weight)	49(H)×480(W)×223(D)mm (2 kg) (Possible to mount on BTS standard rack.)



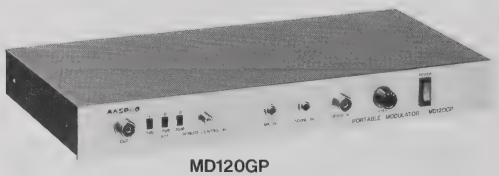
DMD110G

MD-GP PORTABLE MODULATOR

When relaying the broadcast from the TV side, this equipment modulates the signals from the VCR, TV camera and microphone into the upstream high frequency signal (20~30 MHz), and feeds the signal to the head amplifier side.

MD120GP

Video Signal	NTSC
Input Video Signal Control	Video AGC
Differential Gain (DG) Differential Phase (DP)	Less than DG 5 %•DP 5°
Output Frequency	Between 20~30 MHz
Maximum Output Level	120 dBμ (fA=fv−15 dB)
Power Requirements	Specify AC voltage when ordering (at 3 channels)
Power Consumption	Max. 7 W at 117 V AC
Dimensions (Weight)	52(H)×440(W)×240(D)mm (3.9 kg)



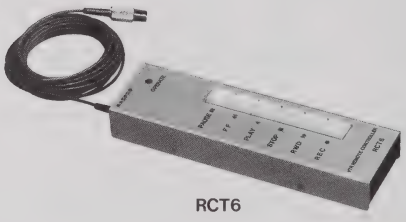
MD120GP

RCT VCR REMOTE CONTROLLER (TRANSMITTER)

This equipment remotely controls the VCR provided in the studio from the TV side, and the VCR can be controlled by the touch of buttons to perform the following functions ; Pause, Fast Forward, Playback, Stop, Rewind and Recording. By connecting this equipment to the portable modulator (MD120GP), recording of the picture is also possible.

RCT6

Output Frequency	Between 34~38 MHz (Normal 34, 36, 38 MHz)
Type of Modulation	Frequency Modulation (Tone Signal)
Output Level	105 dBμ
Control Mode	6 modes (Pause, Fast Forward / Playback, Stop / Rewind, Recording)
Power Requirements	9 V DC 10 mA (Dry Battery)
Power Consumption	0.09 W
Dimensions (Weight)	33(H)×60(W)×203(D)mm (500 g)



RCT6

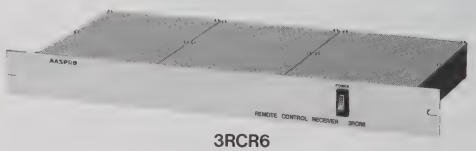
RCR VCR REMOTE CONTROL RECEIVERS

This equipment demodulates high frequency video deck control signal fed as an upstream signal from the TV side to the head amplifier side by the VCR remote controller (RCT6), and activates the VCR.

RCR6

Control Signal Selection	Tuning Fork
Reception Frequency	Between 34~38 MHz (Normal 34, 36, 38 MHz / Capacity : Max. 3 channels)
Normal Operating Input Level	30~90 dBμ
Output Mode	6 modes (Pause, Fast Forward / Playback, Stop / Rewind, Recording)
Power Requirements	20~30 V DC 450 mA (at 3 channels)
Power Consumption	9~13.5 W (at 3 channels)
Dimensions (Weight)	49(H)×480(W)×221(D)mm (2.5 kg) (at 3 channels) (Possible to mount on BTS standard rack.)

1RCR6
2RCR6
3RCR6
└Number of Reception Frequencies



3RCR6

The specifications of Portable Modulator and Video Demodulator are designed for Japanese TV system.
Please specify your TV system when ordering.

MASPRO

SPFN SPLITTERS

Indoor Use • F-type Connector • One Terminal Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω) Input	Impedance (Ω) Output	Splitting Loss (dB) 10~47 MHz	Splitting Loss (dB) VHF	Splitting Loss (dB) UHF	Splitting Loss (dB) 950~1450 MHz	Isolation Out-to-Out (dB) 10~47 MHz	Isolation Out-to-Out (dB) VHF	Isolation Out-to-Out (dB) UHF	Isolation Out-to-Out (dB) 950~1450 MHz	VSWR 10~47 MHz	VSWR VHF	VSWR UHF	VSWR 950~1450 MHz	Symbol	Dimensions H×W×D(mm)
2-way	2SPFN	75		4	3.8	4.3	4.8	20~35	25~40	20~40	20~35	1.2~1.8	1.1~1.4	1.1~1.5	1.2~1.7		63 · 71 · 26
3-way	3SPFN			6	5.8	7	8.3										
4-way	4SPFN			7	6.8	8	9.5										66 · 116 · 26
6-way	6SPFN			9.2	9	10	12.2										66 · 118 · 26
8-way	8SPFN			10.5	10.3	12	13.8										

2SPFN

4SPFN

6SPFN

8SPFN

DC-FN DIRECTIONAL COUPLERS

Indoor Use • F-type Connector
Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω) Input	Impedance (Ω) Output	Impedance (Ω) BR (Tap)	Insertion Loss (dB) 10~47 MHz	Insertion Loss (dB) VHF	Insertion Loss (dB) UHF	Insertion Loss (dB) 950~1450 MHz	Tap Value (dB) 10~47 MHz	Tap Value (dB) VHF	Tap Value (dB) UHF	Tap Value (dB) 950~1450 MHz	Isolation Tap-to-Out (dB) 10~47 MHz	Isolation Tap-to-Out (dB) VHF	Isolation Tap-to-Out (dB) UHF	Isolation Tap-to-Out (dB) 950~1450 MHz	Isolation Tap-to-Tap (dB) 10~47 MHz	Isolation Tap-to-Tap (dB) VHF	Isolation Tap-to-Tap (dB) UHF	Isolation Tap-to-Tap (dB) 950~1450 MHz	VSWR 10~47 MHz	VSWR VHF	VSWR UHF	VSWR 950~1450 MHz	Symbol	Dimensions H×W×D(mm)
1-way	1DC10FN	75			1.4	1.2	1.8	2.2	10	11			25~40	30~45	25~40	20~35	—				1.2~1.8	1.05~1.3	1.1~1.5	1.2~1.7		63× 71×26
	〃 15FN				0.8	0.7	1.1	1.5	15	16																
2-way	2DC10FN				2	1.8	2.2	2.8	10	11																
	〃 15FN				1.3	1.1	1.4	2	15	16							20~35	25~40	20~40	20~35						
4-way	4DC10FN				3.5	3.3	4.3	5.5	10	11	12															
	〃 15FN				1.4	1.2	1.8	2.8	15	16																66×116×26
	〃 20FN				1.2	1.1	1.5	1.8	20	21	22															

1DC15FN

2DC10FN

4DC10FN

DCC-FN WALL OUTLETS

Indoor Use • F-type Connector • Trunk Line Power Passing (1 A at 30 V AC or 15 V DC)

Type	Model	Impedance (Ω) Input	Impedance (Ω) Output	Impedance (Ω) TV	Number of TV Outlets	Insertion Loss (dB) 10~47 MHz	Insertion Loss (dB) VHF	Insertion Loss (dB) UHF	Insertion Loss (dB) 950~1450 MHz	Tap Value (dB) 10~47 MHz	Tap Value (dB) VHF	Tap Value (dB) UHF	Tap Value (dB) 950~1450 MHz	Isolation Tap-to-Out (dB) 10~47 MHz	Isolation Tap-to-Out (dB) VHF	Isolation Tap-to-Out (dB) UHF	Isolation Tap-to-Out (dB) 950~1450 MHz	Isolation Tap-to-Tap (dB) 10~47 MHz	Isolation Tap-to-Tap (dB) VHF	Isolation Tap-to-Tap (dB) UHF	Isolation Tap-to-Tap (dB) 950~1450 MHz	VSWR 10~47 MHz	VSWR VHF	VSWR UHF	VSWR 950~1450 MHz	Symbol	Dimensions H×W×D(mm)
Tap-off	DCC77FN	75	75	75	2	1.4	1.1	1.5	2.5	13	13	14	14	25~40	30~45	25~40	20~35	20~35	25~40	20~40	20~35	1.2~1.8	1.1~1.4	1.1~1.5	1.2~1.7		112× 36×30
Tap-off with Terminator	〃 77FRN	75	—			—	—	—	—	10	10	11	12	—	—	—	—										
Terminal	〃 77FTN		—			3.5※	3.5※	4※	5.5※	—	—	—	—														

※Splitting Loss

DCC77FN

DCC77FRN

DCC77FTN

ATTENUATORS

ATT-fD ATTENUATORS

Model	Impedance (Ω)	Attenuation (dB)	Description	Symbol	Dimensions (mm) / Band
ATT3fD	75 F-type Connector	3	Power Passing Power Passing Capability 1 A	-^^^-	ϕ15×57 / VHF・UHF
" 6fD		6			
" 10fD		10			
" 15fD		15			
" 20fD		20			

ATT-KFD ATTENUATORS

ATT6KFD	75	6	Power Passing Power Passing Capability 1 A	-^^^-	ϕ14×59 / VHF・UHF
" 10KFD		10			
" 15KFD		15			
" 20KFD		20			

ATT10fD

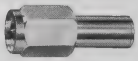
ATT10KFD

TERMINATORS

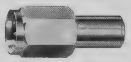
DR TERMINATORS

Model	Impedance (Ω)	Description	Symbol	Band
DR7f	75 F-type Connector	Waterproof	—≠—	VHF, UHF, BS & CS-IF ※
" 7fC		Waterproof・Power Blocking		
" 7FT	75 FT-type Connector			VHF, UHF

※BS & CS-IF : 950 ~ 1450 MHz



DR7f



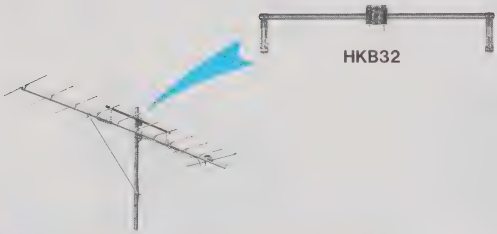
DR7fC

DR7FT

CATV ACCESSORIES

● ANTENNA DIRECTION FIXING BOOM

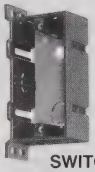
Model	Adaptable Antenna Boom Size (mm)	Adaptable Mast Size (mm)
HKB32	ϕ32	32 ~ 60.5



HKB32

● SWITCH BOX Plastic Housing

Model	Description
SWITCH BOX	For Wall Outlet



SWITCH BOX

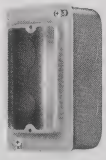
● WATERPROOF COVER Plastic Housing

Model	Description	Dimensions H×W×D(mm)
BCM	For Outdoor Use of Level Setter, Adjacent Channel Mixer, etc.	365×256×138

BCM

● OUTLET BOX Metal Housing

Model	Description	Dimensions H×W×D(mm)
OUTLET BOX	For Wall Outlet	119×72×44



OUTLET BOX

● SPLICE CONNECTOR

Model	Description
J7	For 3C or 5C Cable

J7

CATV ACCESSORIES

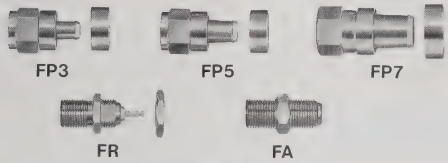
MASPRO

● F-TYPE CONNECTORS

Model	Description
FP3	Plug for 3C (Coaxial Cable)
" 5	Plug for 5C (Coaxial Cable)
" 7	Plug for 7C (Coaxial Cable)
FR	Female Chassis Mount. F-type
FA	Splice, Double Female. F-type
C15TVF	Plug for TVEFCX (Coaxial Cable)
C15FP5	Plug for 5CFB, S5CFV (Coaxial Cable)
C15FP7	Plug for 7CFB, S7CFV (Coaxial Cable)
C15FA	Splice for C15 type, Double Female.

● WATERPROOF F-TYPE CONNECTORS

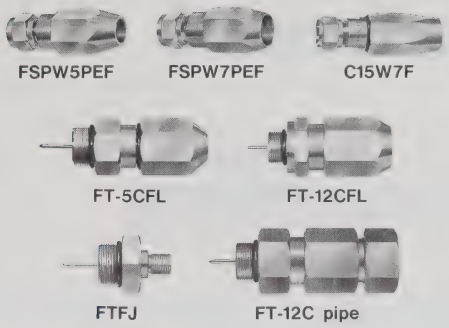
Model	Description
FSPW5PEF	Plug for 5C (Coaxial Cable)
" 7PEF	Plug for 7C (Coaxial Cable)
" 10PEF	Plug for 10C (Coaxial Cable)
" 12PEF	Plug for 12C (Coaxial Cable)
C15WTVF	Plug for TVEFCX (Coaxial Cable)
C15W5F	Plug for 5CFB, S5CFV, 5CFL (Coaxial Cable)
C15W5HF	Plug for 5CHFL (Coaxial Cable)
C15W7F	Plug for 7CFB, S7CFV, 7CFL (Coaxial Cable)
C15W7HF	Plug for 7CHFL (Coaxial Cable)



FP3 FP5 FP7 FR FA

● FT-TYPE CONNECTORS

Model	Description
FT-5CFL	Plug for 5CFL (Coaxial Cable)
" 7CFL	Plug for 7CFL (Coaxial Cable)
" 10CFL	Plug for 10CFL (Coaxial Cable)
" 12CFL	Plug for 12CFL (Coaxial Cable)
FTA-JJ	Splice Adaptor
FTFJ	FT Plug ↔ F-type Female
FT-8C pipe	Plug for 8C (Coaxial Cable)
" 12C pipe	Plug for 12C (Coaxial Cable)
" 15C pipe	Plug for 15C (Coaxial Cable)
" 17C pipe	Plug for 17C (Coaxial Cable)
JT-8C pipe	Splice Adaptor for 8C (Coaxial Cable)
" 12C pipe	Splice Adaptor for 12C (Coaxial Cable)
" 15C pipe	Splice Adaptor for 15C (Coaxial Cable)
" 17C pipe	Splice Adaptor for 17C (Coaxial Cable)

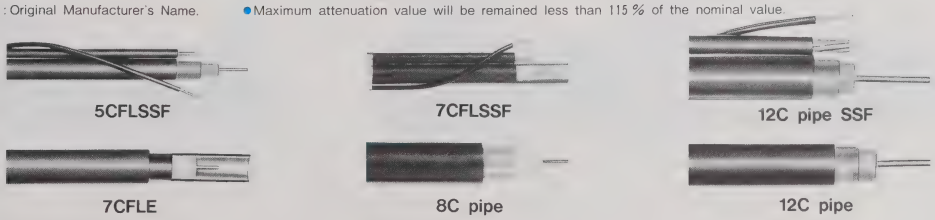


FSPW5PEF FSPW7PEF C15W7F FT-5CFL FT-12CFL FTFJ FT-12C pipe

COAXIAL CABLES

Model	Length Coil (m)	Impedance (Ω)	Attenuation (dB/km) 50 MHz	100 MHz	200 MHz	Conductor Diameter (mm)	Dielectric O.D. (mm)	Jacket O.D. (mm)	Description
5CFLSSF	500	75 ± 3	43	60	87	1.05	5	7.7	Aerial Use With Messenger Wire and Lashing Wire
7CFLSSF			30	43	62	1.5	7.3	10	
10CFLSSF			24	33	48	2	9.4	12.9	
12CFLSSF			19	27	40	2.5	11.7	15.2	
8C pipe SSF	500	75 ± 3	22	32	45	2.1	8.3	11.9	Aerial Use With Messenger Wire and Lashing Wire
12C pipe SSF			17	23	34	2.9	11.3	15.3	
15C pipe SSF			16	18	26	3.8	15	20	
17C pipe SSF			12	16	23	4.3	17.2	21.6	
5CFLE	500	75 ± 3	43	60	87	1.05	5	10.1	Underground Use
7CFLE			30	43	62	1.5	7.3	12.6	
10CFLE			24	33	48	2	9.4	15.9	
12CFLE			19	27	40	2.5	11.7	18.2	
8C pipe	500	75 ± 3	22	32	45	2.1	8.3	11.9	
12C pipe			17	23	34	2.9	11.3	15.3	
15C pipe			16	18	26	3.8	15	20	
17C pipe			12	16	23	4.3	17.2	21.6	

Brand Name : Original Manufacturer's Name. ● Maximum attenuation value will be remained less than 115 % of the nominal value.



5CFLSSF 7CFLSSF 12C pipe SSF 7CFLE 8C pipe 12C pipe

AV EQUIPMENT

MASPRO

- Half size of mini-type stereo component.
- Sophisticated black brushed aluminum look.
- 24 karats gold-plated RCA pin jack.

VSW AV SELECTORS

Model	Video Input/Output Terminal		Audio Input/Output Terminal (Stereo)		Description	Weight (kg)	Dimensions H×W×D(mm)
VSW41	RCA Pin Jack	Input : 4-system Output : 1-system				Approx. 1	47×170×190
41YC	S-terminal	Input : 4-system Output : 1-system	RCA Pin Jack	Input : 4-system Output : 1-system			
42R	RCA Pin Jack	Input : 4-system Output : 2-system			With Remote Controller ※	Approx. 1.3	

※Power Requirements : Specify when ordering.

VSP AV 4-WAY SPLITTERS

Model	Video Input/Output Terminal		Audio Input/Output Terminal (Stereo)	Output Level (Vp-p)	Power Requirements (V)	Power Consumption (W)	Weight (kg)	Dimensions H×W×D(mm)
VSP24	RCA Pin Jack	Input : 2-system Output : 4-system		Video : 1 Audio : 2.2	Specify when ordering	6.1	Approx. 1.1	47×170×190
4	RCA Pin Jack	Input : 1-system Output : 4-system				6.2	Approx. 1.3	

DSW AV DUBBING SELECTOR

Model	Video Input/Output Terminal		Audio Input/Output Terminal (Stereo)	Output Level (Vp-p)	Power Requirements (V)	Power Consumption (W)	Weight (kg)	Dimensions H×W×D(mm)
DSW33YC	S-terminal	Input, Output : 3-system	RCA Pin Jack Input, Output : 3-system	Y : 1, C : 0.3	Specify when ordering	9	Approx. 1.2	47×170×190
	RCA Pin Jack	Input, Output : 3-system		Video : 1 Audio : 2.2				

DSW-E AV DUBBING SELECTOR

Model	Video Input/Output Terminal		Audio Input/Output Terminal (Stereo)	Insertion Loss (dB)	Isolation Tap-to-Tap (dB)	Weight (kg)	Dimensions H×W×D(mm)
DSW42E	RCA Pin Jack	Input : 4-system, Output : 3-system		Less than 0.3	Video : 40, Audio : 50	Approx. 0.9	47×170×190

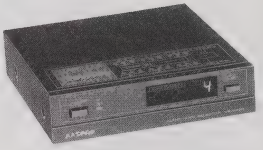
RSW-E RF SELECTOR

VHF(L) { E ch 2~4, A ch 2~6, C ch 1~5 } VHF(H) { E ch 5~12, A ch 7~13, C ch 6~12 } UHF { E ch 21~57, A ch 14~63, C ch 13~44 }

Model	Input Terminal	Output Terminal	Insertion Loss (dB)			Isolation (dB)			Weight (kg)	Dimensions H×W×D(mm)
			VHF (L)	VHF (H)	UHF	VHF (L)	VHF (H)	UHF		
RSW41E	F-type 3-system, RCA Pin Jack 1-system	F-type 1-system	1	2	4~6	More than 50	More than 45	30~40	Approx. 0.8	47×170×192

VSW41

VSW41YC

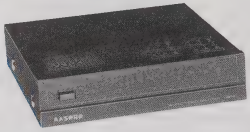


VSW42R

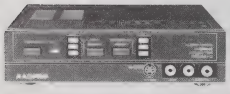
Remote Controller

AV COMMANDER

VSP24

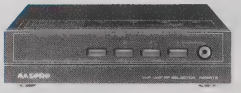


VSP4



DSW33YC

DSW42E



RSW41E

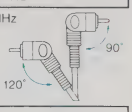
MASPRO

VMD AV MODULATORS

VMD2M : For Stereo/Bilingual NTSC In Japan only.

Model	Input Terminal: Video	Input Terminal: Audio	Input Terminal: Antenna	Output Terminal	Output Level (dBμ)	※Output Channel (ch)	Power Requirements (V)	Weight (kg)	Dimensions H×W×D(mm)
VMD2	RCA Pin Jack		F-type	F-type	73 ± 3	Specify when ordering		Approx. 1	47×170×192
" 2M					85 ± 5			Approx. 1.2	

※Specify one channel among 542 622 MHz



AV CONNECTION CORDS

High-Grade Type (24 karats gold-plated metal plug)

Model	Description	Length Approx. (m)
CVG11	RCA Pin Plug Video (1) - Video (1)	2
" 111		1
" 22	RCA Pin Plug Audio (1) - Audio (1) Video (1) - Video (1)	2
" 221		1
" 23	RCA Pin Plug Audio (1) - Audio (2) Video (1) - Video (1)	2
" 231		1
" 33	RCA Pin Plug Audio (2) - Audio (2) Video (1) - Video (1)	2
" 331		1

Standard Type

Model	Description	Length Approx. (m)
CV113	RCA Pin Plug Video (1) - Video (1)	3
" 11		2
" 111		1
" 22	RCA Pin Plug Audio (1) - Audio (1) Video (1) - Video (1)	2
" 221		1
" 23	RCA Pin Plug Audio (1) - Audio (2) Video (1) - Video (1)	2
" 231		1
" 33	RCA Pin Plug Audio (2) - Audio (2) Video (1) - Video (1)	2
" 331		1

L-type Plugs (24 karats gold-plated plug)

Model	Description	Length Approx. (m)
CV11LG	RCA Pin Plug Video 1 - Video 1	2
" 111LG		1
" 22LG	RCA Pin Plug Audio (1) - Audio 1 Video (1) - Video (1)	2
" 221LG		1
" 23LG	RCA Pin Plug Audio (1) - Audio (2) Video (1) - Video (1)	2
" 231LG		1
" 33LG	RCA Pin Plug Audio (2) - Audio 2 Video (1) - Video (1)	2
" 331LG		1

Standard Type (24 karats gold-plated plug)

CV11G	RCA Pin Plug Video (1) - Video (1)	2
" 111G		1
" 22G	RCA Pin Plug Audio (1) - Audio (1) Video (1) - Video (1)	2
" 221G		1
" 23G	RCA Pin Plug Audio (1) - Audio (2) Video (1) - Video (1)	2
" 231G		1
" 33G	RCA Pin Plug Audio 2 - Audio 2 Video 1 - Video 1	2
" 331G		1

Y/C Separated Signal Type

CV11YCG	S-terminal Plug Video (1) - Video (1)	2

Extensible Cord

CV11E	RCA Pin Plug RCA Pin Jack Video (1) - Video (1)	2

VIDEO CORDS

AVCG5M	PCOCC Cord	5
AVC5M	OFC Cord	

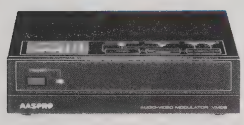
AV CONNECTION CORD KIT

Model	Description
AVKG5M	PCOCC Cord 5 m, RP5 2 pcs.

TV CONNECTION CORDS

CTJ2	J-type Plug	2
" 1		1

AV COMMANDER



VMD2

CVG11

CVG33

CV23

CV33

VMD2M

CV11LG

CV23LG

CV11G

CV23G

CV11YCG

CV11E

AVC5M

AVKG5M

CTJ2

MASPRO

AUDIO CONNECTION CORDS

High-Grade Type (24 karats gold-plated metal plug)

Model	Description	Length Approx. (m)
CAG22	RCA Pin Plug Audio (2) ↔ Audio (2)	2
〃 221		1

Standard Type

CAU223	RCA Pin Plug Audio (2) ↔ Audio (2)	3
〃 22		2
〃 221		1
〃 24	RCA Pin Plug Audio (2) ↔ Audio (4)	2

Standard Type (24 karats gold-plated plug)

CAU22G	RCA Pin Plug Audio (2) ↔ Audio (2)	2
〃 221G		1

L-type Plugs (24 karats gold-plated plug)

Model	Description	Length Approx. (m)
CAU22LG	RCA Pin Plug Audio (2) ↔ Audio (2)	2
〃 221LG		1

CAJ2P	RCA Pin Plug RCA Pin Jack Audio (1) ↔ Audio (2)	0.15
CAP2J	RCA Pin Plug RCA Pin Jack Audio (2) ↔ Audio (1)	0.15

Extensible Cords

CAM113ES	Stereo Mini. Plug (1) ↔ Mini. Jack (1)	3
〃 115ES		5

CAM11R, CAM12SR : Included Resistor

Model	Description	Lenght Approx. (m)
CAU12	RCA Pin Plug Audio (1) ↔ Audio (2)	2
〃 121		1
CAM11	RCA Pin Plug Mini. Plug Audio (1) ↔ Audio (2)	2
〃 11R		
〃 12S	RCA Pin Plug Mini. Plug Audio (2) ↔ Audio (1)	
〃 12SR		

Extensible Cord

CAU22E	RCA Pin Plug RCA Pin Jack Audio (2) ↔ Audio (2)	2

AUDIO CORDS

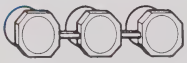
AUCG5M	PCOCC Cord	5
AUC5M	OFC Cord	

OPTICAL DIGITAL CONNECTION CORD

CDA1	Optical Connector Audio (1) ↔ Audio (1)	1

RCA PIN JACK PROTECTOR

Model	Description
RPC4	For RCA Pin Jack (3×4 pcs.)



RPC4

CONNECTORS

RP5L : L-type Plug, AP7G : High-Grade (24 karats gold-plated plug)

Model	Description
RP5	RCA Pin Plug
〃 5L	
AP35	Antenna Plug for Portable TV
〃 7G	Antenna Plug
FP3G	F-type Plug, For 3C

CONVERTIBLE ADAPTORS

Model	Description
FJPP	RCA Pin Plug ↔ F-type Jack
FPPJ	F-type Plug ↔ RCA Pin Jack
RAG	RCA Pin Jack ↔ RCA Pin Jack (2 pcs.)
AD22L	RCA Pin Plug ↔ RCA L-type Pin Jack (2 pcs.)
〃 43S	Stereo Standard Plug ↔ Stereo Mini. Jack
〃 32	Mini. Plug ↔ RCA Pin Jack
〃 34S	Stereo Mini. Plug ↔ Stereo Standard Jack
〃 32S	Stereo Mini. Plug ↔ RCA Pin Jack (L), Pin Jack (R)

CAG22

CAU22

CAU221G

CAU22LG

CAJ2P

CAM115ES

CAU12

CAM12SR

CAU22E

AUCG5M

CAD1

RPC4

RP5L

FP3G

FJPP

FPPJ

AD22L

AD43S

AD32S

MASPRO

21P·21HP MOBILE TENNAS

21～21.45 MHz 50 Ω (M-type Connector)

Model		Frequency (MHz)	Gain (dB)	VSWR	Withstanding Power (W)	Weight (kg)	Length (m)	Description
21P41L	Bend-over type	21～21.45	0	1.2 Adjustable frequency	100	0.37	1.9	¼λ, Stainless Steel
21HP41	Helical type			1.45 Adjustable frequency			1.63	¼λ, Fiberglass

28P·28HP MOBILE TENNAS

28～29.7 MHz 50 Ω (M-type Connector)

28P41L	Bend-over type	28～29.7	0	1.2 Adjustable frequency	100	0.36	1.9	¼λ, Stainless Steel
28HP41	Helical type			1.4 Adjustable frequency		0.32	1.33	¼λ, Fiberglass

50P MOBILE TENNAS

50～54 MHz 50 Ω (M-type Connector)

50P83		50～54	0.9 1.1	1.3 ～1.5	50	0.31	2.01	⅜λ, Stainless Steel
〃 83L	Bend-over type			1.05～1.5		0.34	1.89	

144PW MOBILE TENNAS

(2-band Use) 50～54 MHz·144～148 MHz 50 Ω (M-type Connector)

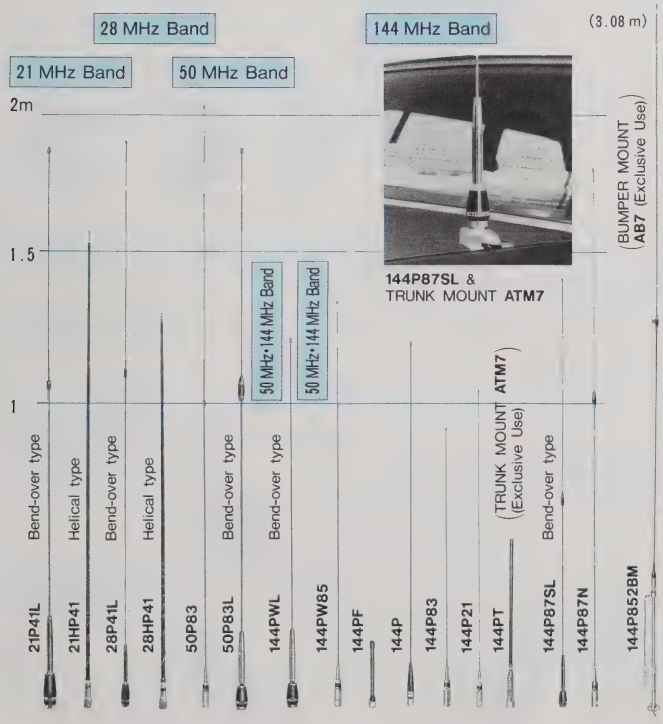
144PWL	Bend-over type	50～54	0	1.2 ～1.5	50	0.26	1.26	50 MHz Band ¼λ 144 MHz Band ⅝λ Stainless Steel
		144～148	2.2～3.2	1.05～1.7				
144PW85		50～54	0	1.1 ～1.5		0.24	1.27	
		144～148	2.7～3.2	1.3 ～1.6				

144P MOBILE TENNAS

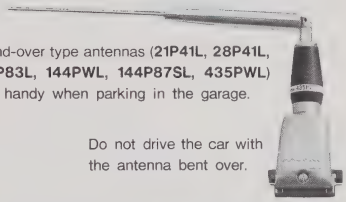
144～148 MHz 50 Ω (M-type Connector)

144PF		144～148	⊖4～⊖3	1.3 ～2	50	0.07	0.21	¼λ, Flexible Type
144P			2 ～3.2	1.2 ～2		0.14	1.25	⅝λ, Fiberglass
144P83			0.8～1.5	1.3 1.5		0.2	0.895	⅜λ, Stainless Steel
〃 21			1.6～2.2			0.23	1.163	½λ, Stainless Steel
〃 T			⊖0.5～0	1.4 ～1.5		0.33	0.54	¼λ, Fiberglass
〃 87SL	Bend-over type		3.5～4.2	1.05～1.3		0.31	1.49	⅞λ, Short Type, Stainless Steel
〃 87N			3.6～4.5	1.2 ～1.4		0.32	1.84	⅞λ, Stainless Steel
〃 852BM			4.8～6	1.2 ～1.8		1.71	3.08	5⅝λ, 2-stack, Stainless Steel ※

※With Base and Cable (5.5 m)



144P87SL & TRUNK MOUNT ATM7



Bend-over type antennas (**21P41L, 28P41L, 50P83L, 144PWL, 144P87SL, 435PWL**) are handy when parking in the garage.

Do not drive the car with the antenna bent over.

ROOF MOUNT **ARM8** (Bend-over type)

MASPRO

435PW MOBILE TENNAS

(2-band Use) 144~148 MHz·430~440 MHz 50 Ω (M-type Connector)

Model		Frequency (MHz)	Gain (dB)	VSWR	Withstanding Power (W)	Weight (kg)	Length (m)	Description
435PW21	Bend-over type	144~148	−0.5 0	1.2 1.8	50	0.18	0.51	144 MHz Band ¼λ 430 MHz Band ½λ Stainless Steel
		430~440	1.9 2.2	1.2 1.5				
L		144~148	1.7 2.8	1.15 1.5		0.27	0.91	144 MHz Band ½λ 430 MHz Band ⅝λ, 2-stack Stainless Steel
		430~440	5.1 5.5	1.1 1.5				
852		144~148	2.2 2.8	1.2 2		0.23	0.925	144 MHz Band ⅝λ 430 MHz Band ⅝λ, 2-stack Stainless Steel
		430~440	5 5.5	1.3 1.5				
853		144~148	3.8 4.5	1.2 1.7		0.35	1.52	144 MHz Band ⅞λ 430 MHz Band ⅝λ, 3-stack Stainless Steel
		430~440	6.5 7	1.3 1.5				
854L	Bend-over type	144~148	5 5.8	1.3 2		0.58	2.005	144 MHz Band ⅝λ, 2-stack 430 MHz Band ⅝λ, 4-stack Stainless Steel
		430~440	7.5 8	1.2 1.5				
435PTW		144~148	−0.4 0	1.3 1.4		0.32	0.51	144 MHz Band ¼λ 430 MHz Band ½λ Fiberglass
		430~440	1.9 2.2	1.1 2				

435P MOBILE TENNAS

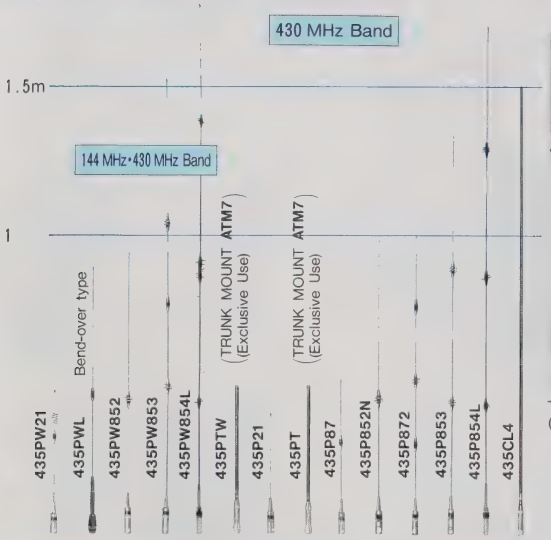
430~440 MHz 50 Ω (M-type Connector)

435P21		430~440	1.9~2.2	1.3 1.5	50	0.15	0.4	½λ, Stainless Steel
〃 T				1.2 1.5		0.32	0.54	½λ, Fiberglass
〃 87			2.5~3.2	1.1 1.5		0.17	0.51	⅞λ, Stainless Steel
〃 852N			5 5.5			0.2	0.905	⅝λ, 2-stack Stainless Steel
〃 872			5.5~6	1.1 1.5		0.28	1.05	⅞λ, 2-stack Stainless Steel
〃 853			6.4~7			0.32	1.375	⅝λ, 3-stack Stainless Steel
〃 854L	Bend-over type		7.5~7.8	1.2 1.5		0.51	1.82	⅝λ, 4-stack Stainless Steel

435CL MOBILE TENNA

430~440 MHz 50 Ω (M-type Connector)

435CL4	Collinear type	430~440	6 6.2	1.1 1.5	50	0.4	1.56	½λ, 4-stack, Fiberglass



TRUNK MOUNT **ATM8**
(Bend-over Type)

● MOBILE TENNA ROOF MOUNTS

Model	Material
ARM5	Zinc Die-casting, Stainless Steel
〃 2	
〃 8	Zinc Die-casting, With Cable (4.2 m)

(M-type Connector)

ARM5

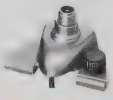
ARM2
(Bend-over Type)

ARM8
(Bend-over Type)

● MOBILE TENNA TRUNK MOUNTS

ATM7	Stainless Steel, With Cable (5 m)
〃 8	Zinc Die-casting, With Cable (5 m)

(M-type Connector)



ATM7

ATM8

● MOBILE TENNA MAGNET MOUNT

AJM	Hard Plastic, With Cable (4.2 m)

(M-type Connector)

AJM

● MOBILE TENNA BUMPER MOUNT

AB7 Stainless Steel

AB7

● HAM ANTENNA DIPLEXER

Model	Insertion Loss (dB)	Isolation (dB)
HD2	0.2~0.25	40~55

144 MHz & 430 MHz Bands 50 Ω (M-type Connector)

HD2

● ABM BUMPER CABLE

Model	Material
ABM CABLE	5D2V (5.5 m)

(M-type Connector)

ABM CABLE With Adaptor for M-type Female

● ARM ROOF SIDE CABLE

ARM CABLE	RG58A/U (4.2 m)

(M-type Connector)

MASPRO

50BDH BROWN TENNA

50～54 MHz 50 Ω (M-type Connector)

Model	Frequency (MHz)	Gain (dB)	VSWR	Withstanding Power (W)	Weight (kg)	Length (m)	Type	Adaptable Mast Size (mm)
50BDH	50～52	0	1.2～1.5	100	1.9	1.7	$\frac{1}{4}\lambda$	32～60.5
	52～54		1.5～2.7					

435GW GROUND-PLANE TENNAS

(2-band use) 144～146 MHz・430～440 MHz 50 Ω (M-type Connector)

435GW3R	144～146	6 ～ 6.2 dBi	1.2～1.5	200	3.35	1.81	144 MHz Band $\frac{7}{8}\lambda$ 430 MHz Band $\frac{5}{8}\lambda$・3-stack	32～60.5
	430～440	9.4～10 dBi	1.1～1.5					
〃 5R	144～146	6.5～6.8 dBi	1.2～1.5		3.83	3.14	144 MHz Band $\frac{5}{8}\lambda$・2-stack 430 MHz Band $\frac{5}{8}\lambda$・5-stack	
	430～440	10 ～10.6 dBi	1.3～1.5					

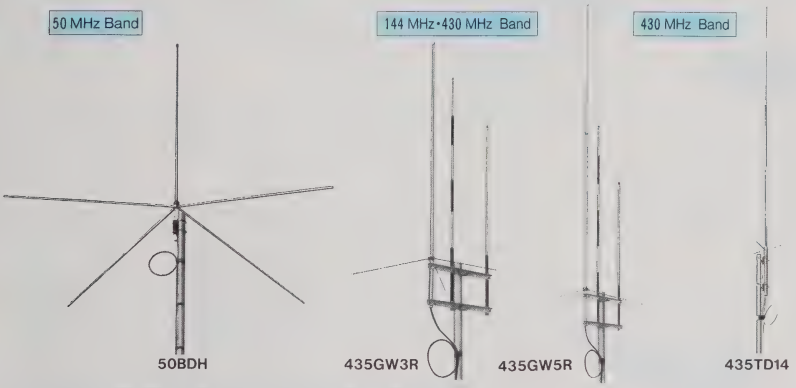
435TD COLLINEAR TENNA

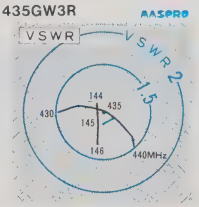
430～440 MHz 50 Ω (M-type Connector)

435TD14	430～440	8～9	1.1～1.3	100	3	3.9	$\frac{1}{2}\lambda$, 14-stack	32～60.5

Ground-plane Antenna (435GW3R, 435GW5R) with Reflectors

Most suitable antenna for mounting on the guardrail of a veranda or balcony in any apartment house or individual house.



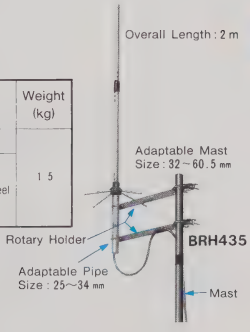


VSWR 1 : Complete matching with no loss.
VSWR 1.5 : Loss of 0.2 dB

Model	Top Element	Center Element	Ground Wire	Waterproof Pipe	Mast Mount	Bolt
50BDH	Corrosion-resistant hard aluminum pipe φ16 mm		Corrosion-resistant hard aluminum pipe (Chromate treatment) φ14 mm	Corrosion-resistant hard aluminum pipe (Alumite treatment) φ34 mm	Stainless steel	Stainless steel
435TD14	Covered with fiberglass pipe φ20 mm	Covered with fiberglass pipe φ25 mm	Chrome plated brass bar φ6 mm	Corrosion-resistant hard aluminum pipe (Alumite treatment) φ32 mm	Steel plate (Galvanized and Chromate treatment	
435GW3R 〃 5R	Covered with fiberglass pipe φ24 mm (Radiator)		Stainless steel bar φ5 mm			

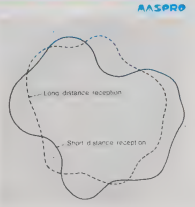
● ROTARY HOLDER

Model	Material		Weight (kg)
	Holder	U-bolt	
BRH435	Steel plate (Hot-dip galvanized plating) ℓ515 mm	Stainless steel	1.5



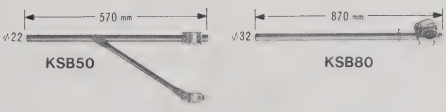
Variation of Receiving Sensitivity due to Rotation of Brown Tenna

Install the omnidirectional Brown Tenna on the Rotary Holder and then mount them on the Mast. The reception level can be varied greatly as shown in the pattern right by rotating the Mast itself with an antenna rotator.
By utilizing this variation, fine and excellent long distance communication can be achieved. This graph is an example of the actual data when combinated the Ham Antenna (430 MHz Band) with the Rotary Holder model **BRH435**.



● OFFSET BOOMS

Model	Material	Adaptable Mast Size (mm)	Description	Weight (kg)
KSB50	Galvanized steel pipe	φ22～32	For 144WH, 435WH, WH59	0.54
〃 80	Steel pipe (Hot-dip galvanized plating)	φ32～60.5		2



MASPRO

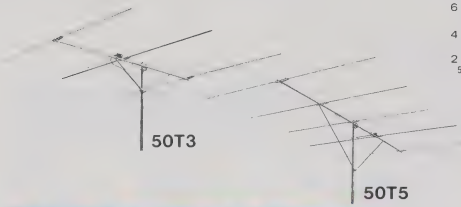
50T HAM TENNAS

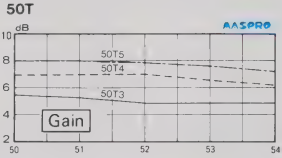
50～54 MHz 50・75 Ω (M-type Connector)

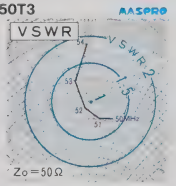
Model	Frequency (MHz)	Gain (dB)	VSWR	F／B (dB)	Beamwidth (°)	Weight (kg)	Length (m)	Width (m)	Radius of Rotation (m)	Wind Load Area (m²)	Adaptable Mast Size (mm)
50T3	50 53	4.8 5.4	1.1 1.4	11.9～21.9	65～69	3.1	2.28	3	Approx. 1.88	0.22	32 60.5
	53 54		1.3 1.9								
〃 4	50 52	6.1 6.9	1.2 1.5	10.1～15.1	52～61	4	3.3		Approx. 2.2	0.29	
	52 54		1.5 2.1								
〃 5	50 54	7.1 7.9	1.1 1.5	14.4～20.1	50～56	5.9	4.32		Approx. 2.62	0.36	

Complete Matching Gamma Match System

A built-in variable capacitor in the bracket will enable fine tuning of impedance.







52 MHz Beamwidth 68°

Model	Element	Element Holder	Boom	Mast Mount	Screw, Bolt
50T3	Corrosion-resistant hard aluminum pipe φ16×t1 mm	Steel plate (Galvanized and chromate treatment)	Corrosion-resistant hard aluminum pipe φ25×t1 mm	Soft steel wire material・Steel plate (Hot-dip galvanized plating)	Soft steel wire material・Steel plate (Galvanized and chromate treatment)
〃 4					
〃 5					

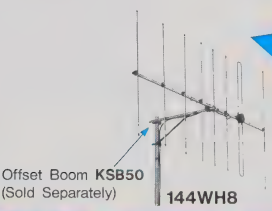
144WH STANDARD HAM TENNAS

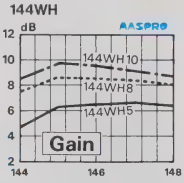
144～148 MHz 50 Ω (M-type Connector)

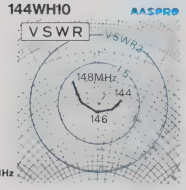
Model	Gain (dB)	VSWR	F／B (dB)	Beamwidth (°)	Weight (kg)	Length (m)	Width (m)	Radius of Rotation (m)	Wind Load Area (m²)	Adaptable Mast Size (mm)
144WH5	4.7 ～ 6.6	1.05 ・1.6	12 ～14	70.5～72.5	0.7	0.93	1.06	Approx. 0.6	0.08	22 34
〃 8	7.5 ～ 8.6		11.3～13.4	60 ～61.5	1.2	1.79		Approx. 1.19	0.13	22 32
〃 10	8.5 ～ 9.7	1.1 1.5	11 ～14	54 ～57	1.4	2.3		Approx. 1.45	0.16	

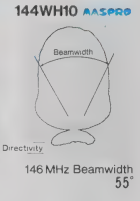
Small Size, Light Weight, Simple Assembly

These light-weight and compact antennas feature a wide range of usage, such as portable antennas for camping, fox hunting, etc., or as fixed antennas on a veranda for a base station.









146 MHz Beamwidth 55°

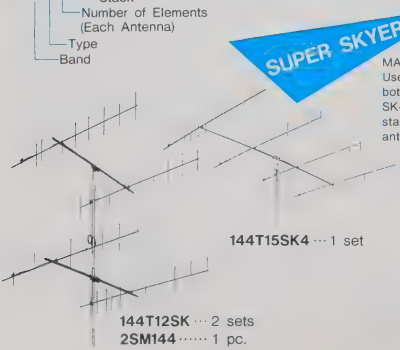
Model	Element	Element Holder	Boom	Mast Mount	Screw, Bolt
144WH5	Corrosion-resistant hard aluminum pipe φ9.5×t0.5 mm	Weatherproof resin・Steel plate (Galvanized and chromate treatment)	Corrosion-resistant hard aluminum pipe φ22.2×t1 mm	Steel plate (Galvanized and chromate treatment)	Soft steel wire material (Galvanized and chromate treatment)
〃 8					
〃 10					

144T-SK HEAVY-DUTY SUPER HAM TENNAS

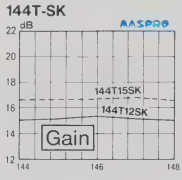
144～148 MHz 50 Ω (N-type Connector)
(With Stack Boom and Matching Transformer)

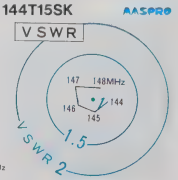
144T12SK	15 ～15.3	1.2 ～1.3	12.1～17.5	19	15.4	4.455	3.7	Approx. 2.98	0.74	48.6～76.3
〃 15SK	16.6～16.8	1.1 ～1.2	13 ～20	15.5～17	16.6	5.855		Approx. 3.815	0.89	
〃 12SK4	17 ～17.3	1.2 ～1.5	13.8～19	10 ～11	33.1	4.455	7.7	Approx. 4.55	1.5	
〃 15SK4	18.4～18.8	1.1 ～1.4	14.2～20	10	35.5	5.855		Approx. 5.02	1.79	

When converting the gain as shown in the above table into absolute gain, add 2.15 to each antenna gain.



MATCHING TRANSFORMER
Use this for coupling between both stacked antennas when SK-type antennas are stacked or SK4-type antennas are also stacked.





146 MHz Beamwidth 16°

VSWR 1 : Complete matching with no loss.
VSWR 1.5 : Loss of 0.2 dB

Model	Element	Element Holder	Boom	Mast Mount	Screw, Bolt
144T12SK	Corrosion-resistant hard aluminum pipe φ9.5×t1 mm	Corrosion-resistant hard aluminum pipe	Corrosion-resistant hard aluminum pipe 144T12SK, 12SK4 φ31.8×t1.5 mm 144T15SK, 15SK4 φ31.8×t1.5 mm φ35 ・t1.5 mm	Soft steel wire material・Steel plate (Hot-dip galvanized plating)	Stainless steel・Soft steel wire material (Hot-dip galvanized plating)
〃 15SK					
〃 12SK4					
〃 15SK4					

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435WH STANDARD HAM TENNAS

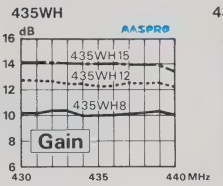
430~440 MHz 50 Ω (M-type Connector)

Model	Gain (dB)	VSWR	F/B (dB)	Beamwidth (°)	Weight (kg)	Length (m)	Width (m)	Radius of Rotation (m)	Wind Load Area (m^2)	Adaptable Mast Size (mm)
435WH8	10 ~10.4	1.1 ~1.4	14 ~17.8	47~50	0.5	0.8	0.35	Approx. 0.7	0.06	22 34
〃 12	12.2~12.8	1.2 ~1.3	16 ~17.8	35~37	1	1.51		Approx. 1	0.07	22 32
〃 15	13.5~14.2	1.05~1.3	16.8~20	30~31	1.2	2.19		Approx. 1.4	0.1	

Small Size, Light Weight, Simple Assembly

Most suitable for portable station, fox hunting or for use on the veranda in an apartment house.

435WH



435WH12

435WH12

435 MHz Beamwidth
36°

WAVE HUNTER

Model	Element	Element Holder	Boom	Mast Mount	Screw. Bolt
435WH8 〃 12 〃 15	Corrosion-resistant hard aluminum pipe φ9.5×t0.5 mm	Weatherproof resin• Steel plate (Galvanized and chromate treatment)	Corrosion-resistant hard aluminum pipe φ22.2×t1mm	Steel plate (Galvanized and chromate treatment)	Soft steel wire material•Steel plate (Galvanized and chromate treatment)

435UF HEAVY-DUTY SUPER HAM TENNA

430~440 MHz 50 Ω (M-type Connector)

435UF15G	14 ~14.8	1.1 ~1.3	24 25	30~33	2.7	2.45	0.33	Approx. 1.5	0.17	32 60.5

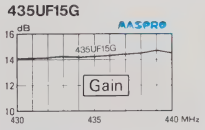
Non Adjustable 2-conductor Type Radiator

A self-balancing type which does not use Balun (balanced-unbalanced transformer) in the bracket.

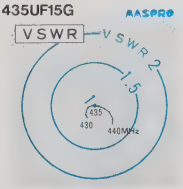
High Performance

Widely spaced elements and folded type reflector upgrade the performance.

435UF15G



435UF15G



VSWR 1 : Complete matching with no loss.
VSWR 1.5 : Loss of 0.2 dB

435UF15G

435 MHz Beamwidth
31.5°

435UF15G
(With Offset Boom)

Model	Element	Element Holder	Boom	Mast Mount	Screw. Bolt
435UF15G	Corrosion-resistant hard aluminum pipe φ9.5×t0.5 mm	Aluminum die-casting	Corrosion-resistant hard aluminum pipe φ22.2×t1.2 mm	Steel plate • Soft steel wire material (Hot-dip galvanized plating)	Stainless steel

HAM ANTENNAS

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Overseas Amateur Satellite Communication will be possible by 144 MHz Band and 430 MHz Band!

WHS HAM TENNA for Amateur Satellite Communication

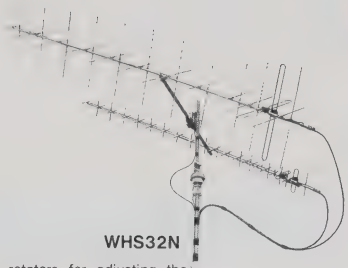
144 MHz Band • 430 MHz Band 50Ω
(N-type Connector)

Model		Frequency (MHz)	Polarization	Gain (dB)	VSWR	F/B (dB)	Beamwidth (°)	Withstanding Power (W)	Weight (kg)	Length (m)	Radius of Rotation (m)	Wind Load Area (m^2)
WHS32N	144HS12	144～146	RHCP/LHCP Change Over	10 12	1.1 1.5	20.7～22.5	33～35	50	8.7※	4.11	Approx. 2.6	0.62
	435HS20	430～440		12.5～13.4		16.5～18.3	27～29			3.68		

Note: RHCP: Right Hand Circular Polarization
LHCP: Left Hand Circular Polarization

※ 2 Antennas + Stack Boom

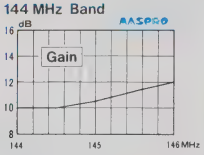
OSCAR HUNTER



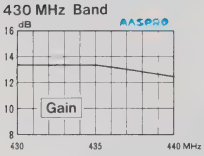
WHS32N

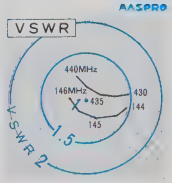
The rotators for adjusting the angles of elevation and azimuth are available on the market.

144 MHz Band



430 MHz Band

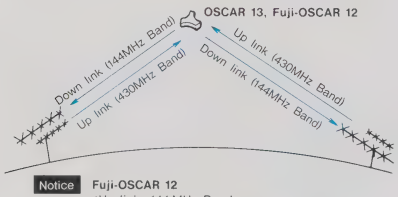




VSWR 1: Complete matching with no loss.
VSWR 1.5: Loss of 0.2 dB

145.9 MHz Beamwidth 33°

435.1 MHz Beamwidth 29°



Notice Fuji-OSCAR 12
(Up link: 144 MHz Band
Down link: 430 MHz Band)

Model	Element	Element Holder	Boom	Mast Mount	Stack Boom
WHS32N	Corrosion-resistant hard aluminum pipe 144MHz Band φ9.5×0.8mm 430MHz Band φ9.5×0.5mm	Corrosion-resistant hard aluminum	Corrosion-resistant hard aluminum pipe φ25×12mm	Steel plate • Soft steel wire material (Hot-dip galvanized plating)	Fiberglass φ40×14×1700mm

BLISTER PACK GOODS

• MAST JOINT

Model	Page
MJ25	19

• GUY RINGS

RS25	19
RSG25	

• FEEDER ACCESSORIES

STANDOFF	19
MAST STANDOFF	

• CLAMP

CLAMP	19

• VHF·UHF MIXER & VHF·UHF SEPARATOR SET

MS377	20

• VHF·UHF MIXERS

UV377N	20
〃 77D	
W73N	

• UHF MIXER

UU33	20

• BOOSTERS

Model	Page
UB30T	22
WB30T	23

• VIDEO BOOSTERS

VTV28	21
〃 30	
VTU28	22
〃 30	
VTW28	23
〃 30	

• TABLE BOOSTERS

UTB30	22
TB30	23

• OUTDOOR USE SPLITTER

2SPC	24

• SPLITTERS

D3	24
2D7	10, 24

• SPLITTERS

2SP	10, 24
3SP	
4SP	

• SPLITTERS

Model	Page
2SPFN	10, 40, 48
3SPFN	
4SPFN	
6SPFN	

• DIRECTIONAL COUPLERS

1DC10	11, 25
2DC10	
4DC10	

• DIRECTIONAL COUPLERS

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2DC10FN	
4DC10FN	

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〃 7	

• MATCHING TRANSFORMERS

MAT10	26
〃 10F	

• VHF·UHF SEPARATOR

Model	Page
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• WALL OUTLETS

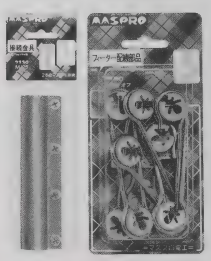
DCC7N	11, 44
〃 7RN	
〃 7TN	
〃 7FN	
〃 7FRN	
〃 7FTN	
〃 77FN	
〃 77FRN	
〃 77FTN	
〃 7FDN	
〃 7FTDN	

• WALL OUTLETS SURFACE TYPE

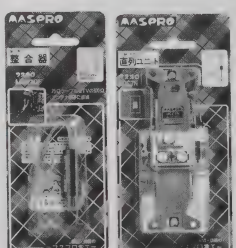
DCH7F	43
〃 7FT	

• SPLICE CONNECTOR

J7	49



MJ25 STANDOFF



MAT10F DCC7N

BLISTER PACK GOODS

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●F-TYPE CONNECTORS

Model	Page
FP3	50
〃 5	
FA	

●ATTENUATORS

ATT6KFD	49
〃 10KFD	

●COAXIAL CABLES

3CFVR3M Black	19
〃 3M White	
〃 5M Black	
〃 5M White	
〃 10M Black	
〃 10M White	
〃 15M Black	
〃 15M White	
〃 20M Black	
〃 20M White	

●COAXIAL CABLES

5CFVA3M Black	19
〃 3M White	
〃 5M Black	
〃 5M White	
〃 10M Black	
〃 10M White	
〃 15M Black	
〃 15M White	
〃 20M Black	
〃 20M White	

●AV CONNECTION CORDS

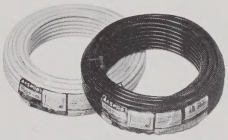
CVG11	52
〃 111	
〃 22	
〃 221	
〃 23	
〃 231	
〃 33	
〃 331	
CV113	52
〃 11	
〃 111	
〃 22	
〃 221	
〃 23	
〃 231	
〃 33	
〃 331	
CV11LG	52
〃 111LG	
〃 22LG	
〃 221LG	
〃 23LG	
〃 231LG	
〃 33LG	
〃 331LG	
CV11G	52
〃 111G	
〃 22G	
〃 221G	
〃 23G	
〃 231G	
〃 33G	
〃 331G	

FP3 FP5

ATT6KFD

3CFVR5M Black

3CFVR5M White



5CFVA20M White・Black

CVG23

CV331

CV11

CV22

CV111LG

CV33LG

CV111G

CV331G

●AV CONNECTION CORDS

Model	Page
CV11YCG	52
CV11E	52

●VIDEO CORDS

AVCG5M	52
AVC5M	

●AV CONNECTION CORD KIT

AVKG5M	52

●TV CONNECTION CORDS

CTJ2	52
〃 1	

●AUDIO CONNECTION CORDS

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〃 221	
CAU12	53
〃 121	
〃 223	
〃 22	
〃 221	
〃 24	
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〃 221G	
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〃 221LG	
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CAP2J	
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〃 115ES	
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〃 11R	
〃 12S	
〃 12SR	
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AUC5M	

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RAG	
AD22L	
〃 43S	
〃 32	
〃 34S	
〃 32S	

●RCA PIN JACK PROTECTOR

RPC4	53

CV11YCG

AVKG5M

CTJ1

CAU24

CAU22G

CAJ2P

CAU12

CAM11R

AUC5M

CDA1

RP5L

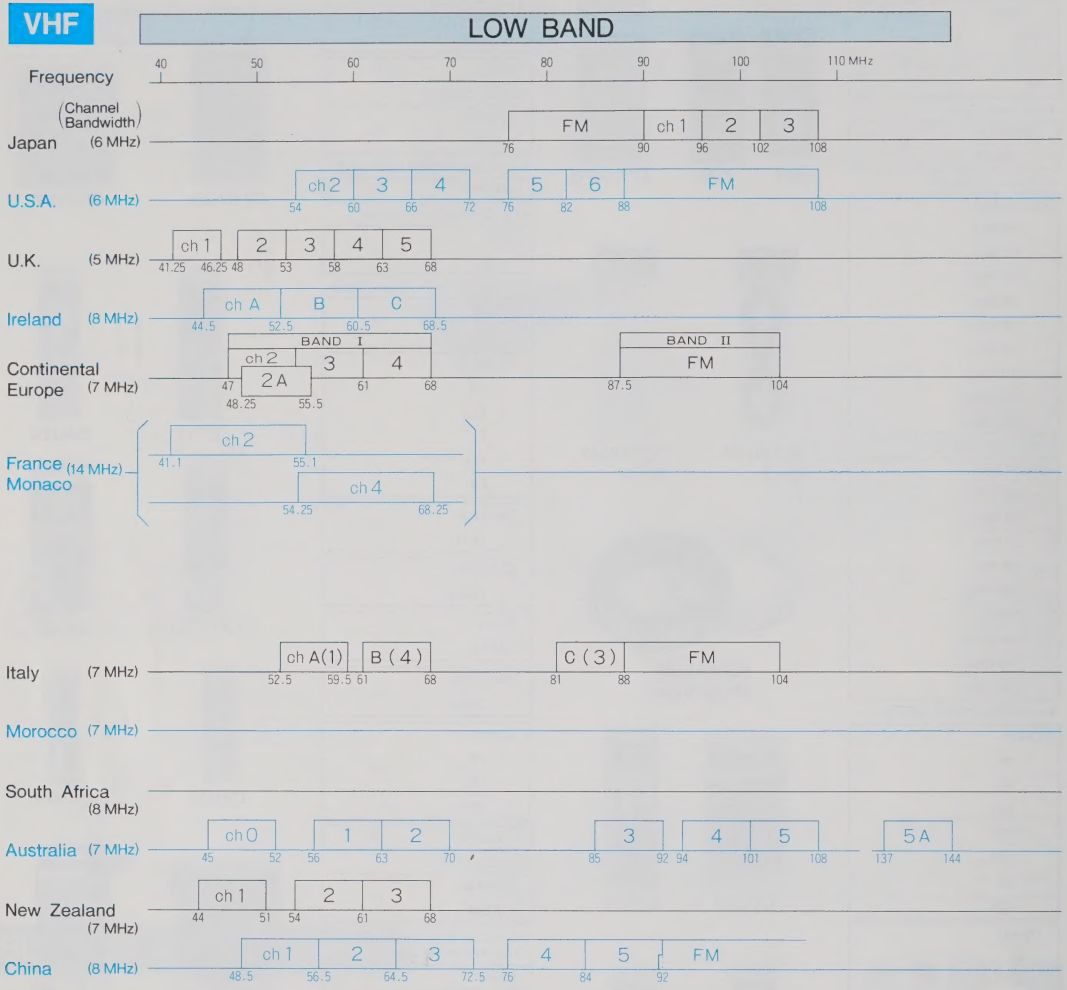
FP3G

FPPJ

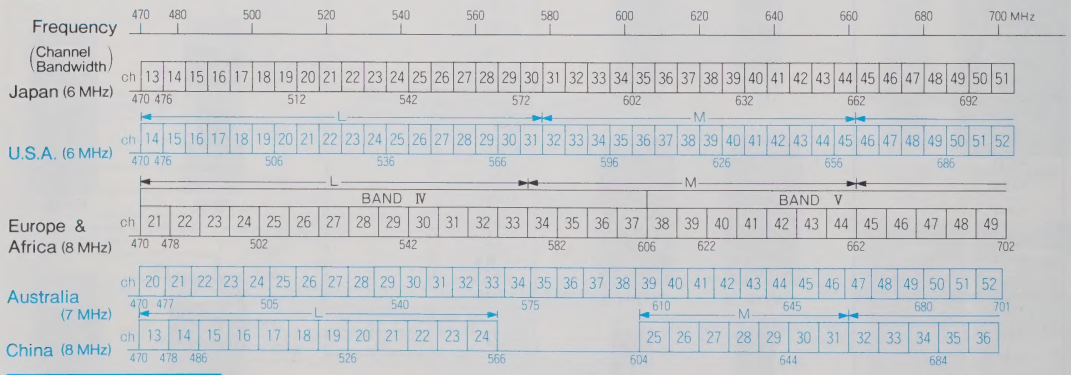
RPC4

TV WORLD CHANNEL TABLE

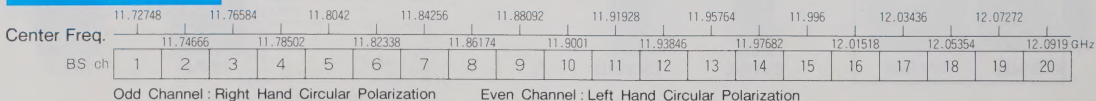
VHF



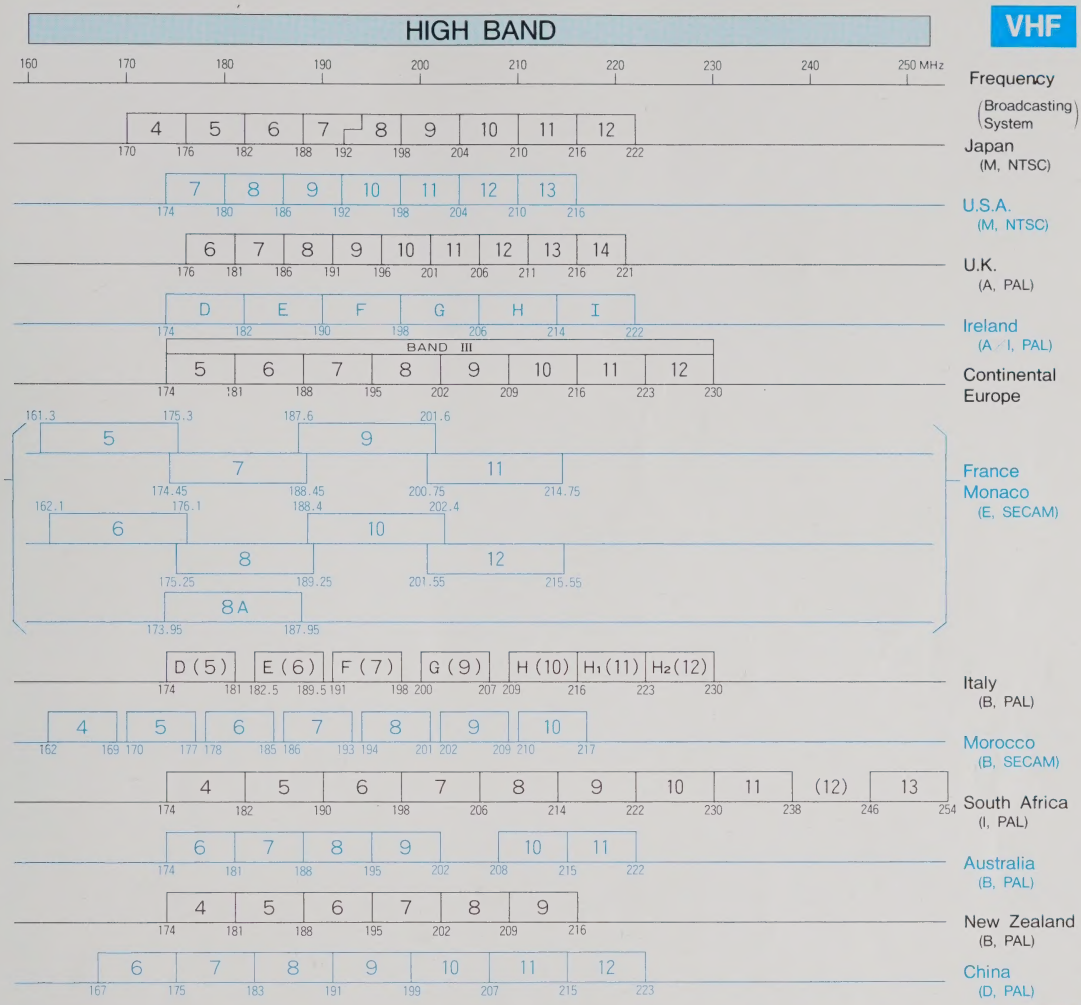
UHF

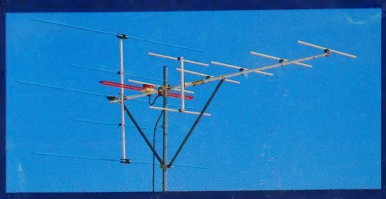


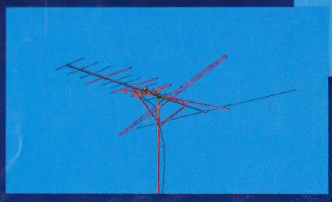
DBS Channel (ITU Regions 1 and 3)

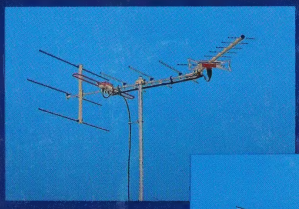


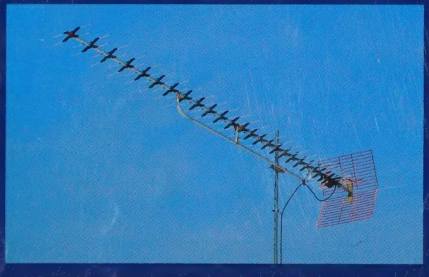
Odd Channel : Right Hand Circular Polarization Even Channel : Left Hand Circular Polarization

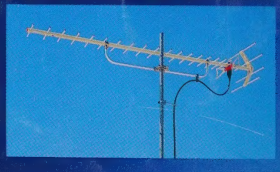

HIGH BAND
VHF
160 170 180 190 200 210 220 230 240 250 MHz
Frequency
(Broadcasting System)
4 5 6 7 8 9 10 11 12
170 176 182 188 192 198 204 210 216 222
Japan (M, NTSC)
7 8 9 10 11 12 13
174 180 186 192 198 204 210 216
U.S.A. (M, NTSC)
6 7 8 9 10 11 12 13 14
176 181 186 191 196 201 206 211 216 221
U.K. (A, PAL)
D E F G H I
174 182 190 198 206 214 222
Ireland (A - I, PAL)
BAND III
5 6 7 8 9 10 11 12
174 181 188 195 202 209 216 223 230
Continental Europe
161.3 175.3 187.6 201.6
5 9
7 11
174.45 188.45 200.75 214.75
162.1 176.1 188.4 202.4
6 10
8 12
175.25 189.25 201.55 215.55
8A
173.95 187.95
France Monaco (E, SECAM)
D (5) E (6) F (7) G (9) H (10) H1 (11) H2 (12)
174 181 182.5 189.5 191 198 200 207 209 216 223 230
Italy (B, PAL)
4 5 6 7 8 9 10
162 169 170 177 178 185 186 193 194 201 202 209 210 217
Morocco (B, SECAM)
4 5 6 7 8 9 10 11 (12) 13
174 182 190 198 206 214 222 230 238 246 254
South Africa (I, PAL)
6 7 8 9 10 11
174 181 188 195 202 208 215 222
Australia (B, PAL)
4 5 6 7 8 9
174 181 188 195 202 209 216
New Zealand (B, PAL)
6 7 8 9 10 11 12
167 175 183 191 199 207 215 223
China (D, PAL)
UHF
700 720 740 760 780 800 820 840 860 880 900 920 MHz
Frequency
(Broadcasting System)
52 53 54 55 56 57 58 59 60 61 62
704 722 752 770
Japan (M, NTSC)
H
53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83
704 716 746 776 806 836 866 890
U.S.A. (M, NTSC)
H
BAND V
50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69
702 742 782 822 862
Europe & Africa
53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69
701 715 750 785 820
Australia (G, PAL)
H
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56
700 724 764 796 804 812 852 868
China (K, PAL)
12.11108 12.14944 12.1878 12.22616 12.26452 12.30288 12.34124 12.3796 12.41796 12.45632
12.13026 12.16862 12.20698 12.24534 12.2837 12.32206 12.36042 12.39878 12.43714 12.4755 GHz
Center Freq.
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40











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MASter of PROduction

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